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THE THEORY OF DEMOCRACY

PREFATORY NOTE

WE propose to make a philosophical analysis of democracy. We cannot ignore the fact that this analysis is coincident with a world-wide war which has come to be described as a struggle between "the democracies" and "the totalitarian powers." Although the theory we are about to expound owes nothing to that fact, neither in origin nor in development, it cannot help having a bearing on the issues of the day. But we beg the reader to avoid a too hasty or a too simple application of our thesis to current events. The word "democracy," through its use in propaganda of all sorts, has come to stand for almost anything that one can be politically for or against. We hope to restore it to precise significance in the analytical vocabulary of political thought. We ask the reader to help us by not identifying democracy with the existing governments of England and the United States. What sort of governments exist in these countries, and in what way they are good or bad, are questions of casuistry, not of political theory. The political philosopher must achieve truth and clarity on the level of principles before casuistical questions can

be intelligently faced. The confusion of theory with casuistry, so prevalent throughout the history of political thought, prevents each from helping the other. To enlist the reader's aid in avoiding such confusion, and to caution him that the thesis is neither intelligible nor true apart from its qualifications, we quote here, before we begin, two sentences that occur at a later stage of our discussion: "The worst misunderstanding of what we are trying to say would be to suppose our judgment of democracy to be that it is always and everywhere the best form of government for a people to adopt. . . . Far from supposing that democracy is the best form of government relative to every historic situation, we seriously doubt whether in the world today there is any people whose physical, economic, cultural, and moral attainments are yet adequate for the full practice of democracy."

Part I. Introductory

1. The present work has two aims. The first is an adequate explication of the truth that democracy is, on moral grounds, the best form of government. The second is a reformulation of political theory in so far as it concerns the basic problem of the classification of states.

The two aims are interdependent. If the proposition about democracy is true, then certain traditional doctrines about the classification of states must be modified; the underlying principles of classification must be revised. This will involve two sorts of rectification: some errors must be corrected, and additional principles are needed where the traditional doctrine is analytically incomplete. Unless such modification and revision can be accomplished, the proposition that democracy is, on moral grounds, the best form of government, cannot be proved; in fact, quite apart from the demonstration of this proposition, the *possibility* of its being true is not even intelligible in terms of traditional theory. The theory of democracy thus becomes identical with a whole political theory, and this theory will be new in so far as it corrects and extends traditional doctrines in

order to make the truth about democracy both intelligible and demonstratively certain. It will not be necessary, therefore, to keep the two aims of this work separate. On the contrary, they tend to fuse at every stage of the analysis.

That genuinely new developments in political theory are possible, and that in the course of history such developments are necessitated by progress in political institutions, should neither be surprising nor shocking. Unlike other branches of philosophy, notably metaphysics and ethics, political thought is conditioned by the historic contingencies of human culture. To the extent that its principles are derived from the nature of man, politics, like ethics, attains to truths which are absolute and universal precisely in the sense that they are not relative and restricted to particular historic situations. But though the truths themselves be absolute, the discovery of them may be relative to and conditioned by the cultural environment which determines a political philosopher's field of vision. A political thinker cannot help being affected by the particular society and time in which he lives, and by the vicarious experience furnished him by recorded political history. The limits of this experience, both actual and vicarious, will determine his formulation of principles to account for existing institutions, and also his prophetic projection of the principles to cover future possibilities. Five hundred or one thousand years of political history can scarcely suffice for the previsioning of the whole course of events to follow. Furthermore, the development of political institutions and the invention of new political arrangements are so dependent on the physical and economic circumstances of social life that failure to forsee what has been called technological progress necessarily results in failure to foresee the political changes which such progress makes possible. These defects of vision cannot be avoided by thinkers whose experience is limited by their own political environment and by the point in time from which they survey the unfolding pattern of political history, and guess at the secrets of its hidden dynamism. No effort of imagination can remedy such blindness, nor will the greatest aptitude for theorizing succeed in pene-

trating what lies beyond the imaginable. Man's intelligence is not angelic. Although every truth of political theory could be known at once to a pure intelligence, it takes time for men to discover these truths in the slow development of political philosophy—the discovery being occasioned by unpredicted, and unpredictable, novelties in the sphere of political action, by the invention of new institutions, the formation of new arrangements.[1]

We who are engaged today in political theorizing are, of course, subject to the same essential limitations as were our ancestors. A thousand years hence, the political thought of the twentieth century will betray defects and inadequacies peculiar to its partial experience and its limited vision. We should be guilty of the worst sort of *hubris*, were we to pro-

[1] Of all the branches of philosophy, politics is, perhaps, the most circumscribed by the historic limitations of thinkers living at a given place and time. This is obviously due to the fact that the process of learning, through which men discover fundamental truths in any field, is by induction from experience, and to the fact that, in the case of politics, the relevant experience available at a given time is far from adequate. (Adequate political experience may not be available until the end of time and the discovery of political truths may, therefore, be forever a continuing process.) In contrast, the experience which is relevant to ethical formulations may be relatively adequate at an early period in human history, and so we should not expect radical new discoveries in this field, however much may be achieved by way of analytical precision, as later thinkers refine and rework the ethical theory of their predecessors. As conditioned by historic contingencies in the order of experience, the philosophy of nature somewhat resembles political theory. New discoveries in the philosophy of nature may be occasioned by advances in the empirical sciences, advances which enlarge our experience of natural phenomena, just as new formulations in political theory may be prompted by the changing face of man's political life. In neither case is the philosophical truth, once discovered, relative to time and place: a philosophical truth discovered by the Greeks is true today; and a truth which modern philosophers may be beginning to discover today was true in the ancient world even though the experimental conditions were then not yet ripe for its discovery. So when we speak of a Christian philosophy, distinguished by its possession of metaphysical truths not known to the ancients, we do not mean that these truths belong only to a specifically Christian culture, but rather that their discovery was occasioned by the spiritual conditions under which philosophical work was done in a Christian culture. To regard Christian philosophy as an historical phenomenon is not to dismiss it as peculiarly mediaeval because the Middle Ages were the historical period in which that phenomenon happened to occur.

ceed as if, because we can see more than our mediaeval and ancient teachers did, we could see all. But it is not pride or vanity for us to claim that we can see more; in the twenty-four hundred years since Aristotle worked, even in the seven hundred since St. Thomas Aquinas, there have been profound changes in human culture, especially in those physical factors which influence the character of communities by enlarging the means of communication, and which, altering the modes of production and distribution, transform the economic conditions of human association. These changes in the physical and economic conditions of human association have required, even sponsored, certain political innovations. Not only do we have more political history to guide us, than had Aristotle and St. Thomas; not only does our political experience include the trial of methods and forms unknown to them; but, in consequence of these advantages, we can see potentialities for future development of which they could not dream. The remarkable changes in the word "democracy" itself—both its analytical connotations and its sentimental aura—signify the difference between our point of view, and that of our forebears, a transformation which, by the way, has gained conscious recognition only in the last hundred years, or even less. The word which the ancients used to name the most tolerable of the bad forms of government, or which in its best signification was used by the Middle Ages to name merely one of the factors in good government (i. e., popular participation, in a mixed regime), has become the name for a political ideal—the best form of government, or even the only good form of government, considered absolutely. Far from thinking that democracy, as it has come to be conceived in the last hundred years, is already fully realized in existing political institutions, those who regard it as the best form of government, absolutely speaking, insist that it is an ideal which has only begun to be realized in the most tenuous way, and which it may take many more centuries of struggle and tribulation to bring to more substantial accomplishment. Nor would they recommend its immediate adoption by all existing communities, for they know that the best form of

government, absolutely speaking, may not be the best relative to people living under inferior physical, economic, and cultural conditions.

The fact that democracy has come to be regarded by some peoples, and by a few political thinkers, as the best form of government and as an ideal toward which political activity should aim, does not make the proposition true. It is not even the predominant opinion of mankind, for it is clearly the case that more peoples have turned away from democracy than seek it; and, if we weigh the judgment of experts, there are many more eminent thinkers, throughout the history of political thought, who have rejected democracy in principle or misconceived it, than the few, mostly of recent date, who have conceived it in such a way that they reject all other forms as inferior by comparison. The facts about the distribution of opinions favorable or unfavorable to democracy, among peoples generally or among competent theorists, are not relevant to the truth of the proposition; but they are relevant to the consideration of the proposition as formulating a problem to be solved. The question, "Is democracy, on moral grounds, the best form of government?" would not even have been raised in any period previous to our own. That the question can be raised and is being discussed today, that there is a great deal of sentiment in favor of an affirmative answer, that there has been some effort to formulate the grounds for such an affirmation—these things evidence the *possibility*, at least, of a fundamental advance in political theory. If the affirmative answer is true, and if that proposition can be conclusively demonstrated, then political theory will itself be fundamentally altered, for the truth about democracy cannot be simply added as a new conclusion; it is the sort of conclusion which can be added only at the cost of correction and revision in basic principles. And this new development of political theory, assimilating to itself, of course, all that is true in ancient and mediaeval formulations, will be a distinctively modern achievement, precisely in the sense that its novel discoveries will have been occasioned by

novelties in political institutions and arrangements which have just won conscious recognition in recent times.[2]

2. The present work grows out of the prior inquiries of its authors. Each pursuing a somewhat different line in the consideration of basic political questions has found in the writings of the other the challenge of *apparent* contradiction; but prolonged discussion of the points apparently in issue has in every case resulted in better understanding and ultimately in complete agreement, because what at first appeared to be contradiction became, through clarification, complementary angles of analysis. Their collaboration in the present work is thus the expression of an intellectual community gradually achieved through sustained efforts to communicate. Since it signifies a resolution of their differences, a brief marking of those divergent lines of approach might help the reader to share with them the common ground they have at last attained.

One of the authors has been primarily concerned with the natural foundations of the political order—its ultimate roots in the social and rational nature of man.[3] From a consideration of the origins of the state, and of the moral principles underlying all political institutions, he has recently attempted to distinguish the ethical from the political aspects of government,

[2] If Greek and mediaeval political philosophy be read *formalissime*, it will be found to contain, in germ at least, all the principles of the theory of democracy. These principles are, of course, often obscured by the materializations they are given—in application to local institutions and concrete historic situations. As Jacques Maritain points out: "Rien de plus tragique que ces glissements de l'intelligence, quand elle passe insensiblement d'un principe trés élève formellement vrai à une application ou materialization menteuse; on trouve beaucoup de ce glissements chez les Grecs, c'est pourquoi les scolastiques disaient qu'il importe toujours d'entendre Aristote *formalissime*." (*Questions de Conscience*, Paris, 1938: p. 99.) It is just as necessary for us to interpret the great mediaeval writers *formalissime*, as it was for them to abstract the true principles of an Aristotle from the falsifying embodiment of Greek imagery.

[3] Cf. Walter Farrell: "The Natural Foundations of the Political Philosophy of St. Thomas," in the *Proceedings of the American Catholic Philosophical Association*, VIII, 75-85; "The Roots of Obligation," THE THOMIST, I, 1, 14-30; "The Philosophy of Sovereignty," in the *Proceedings of the American Catholic Philosophical Association*, XIV, 103-11.

and to define what is common to all good governments in terms of compliance with an essential minimum of ethical requirements. He has been willing to regard democracy, or what he called "representative government," as one of the good political forms—good in purely moral terms—but he appeared to reject the notion that one form of government could be better than another on moral grounds; hence the comparison of diverse governments, all equally good in terms of ethical principles, can be made only with regard to the efficiency of a given political form in a particular historic situation.[4]

The other of the collaborators has also been concerned with the distinction between ethics and politics, but primarily with emphasis upon the greater relativity of political philosophy to the historic limitations of its writers. He maintained that democratic institutions, and certain modes of representative government, are distinctively modern achievements, and that political thought must be revised to take account of these novelties in the historic order.[5] But whereas originally he supposed that

[4] Vd. "The Fate of Representative Government," in THE THOMIST, II, 2, 175-207, in which Father Farrell says that he uses the term 'representative government' rather than 'democracy' to signify "a ruling power that includes popular sovereignty, the sanctity of the individual, and the common good. Its signification might be put more briefly by insisting that it includes popular sovereignty, an explicit or implicit social contract, and dependence on and a harmony with natural law. This form of government is of peculiar interest not by way of contrast between good and bad governments, nor as a study of one governmental device, nor yet by way of comparison with totalitarian forms of government, but rather by way of analysis of one form of good government" (pp. 179-80). And then, after he has outlined the ethical principles which define good government, Father Farrell adds: "The ethical principles of representative government are no whit different from the ethical principles of any other form of good government. These principles stem immediately from human nature itself and consequently are of an absolute universality. . . . The differentiation of governments cannot be ethical but only political. The ethical form gives the common note of all governments, i.e., the human note; the political form gives the differentiation of different types of government, that is, the political note" (p. 192).

[5] Mortimer J. Adler: "Parties and the Common Good," *The Review of Politics*, I, 1, 51-83. Unlike ethics, "political philosophy cannot be both ancient and adequate in principle. More than casuistry and interpretation is needed to make the political wisdom of Aristotle and St. Thomas applicable today; and the more that is needed is more or different wisdom, wisdom about the justice of political

such revision could take the form of extending the principles to cover deviations in detail,[6] he has more recently decided that the inadequacy of ancient principles is more fundamental: that the traditional classification of good and bad forms of government fails to take account of criteria in terms of which there is a moral gradation among good forms, and that when the principles of political justice are adequately set forth, it can be shown that democracy is not simply one among several good forms of government, but that it is, on moral grounds, the best form.[7]

The reader will observe at once the most crucial of the *apparent* disagreements between the present collaborators. One appeared to deny that any moral distinction in gradation of goodness could be made among forms of government: every form of government was either morally good or morally bad by conformity with or violation of the same set of ethical principles. The other affirmed that such moral gradation of the good forms could be made, and in developing this point he appeared to deny that there was any univocal criterion by which all good forms could be distinguished from all bad forms. The apparent contradiction was resolved when each realized that he was right in his affirmation, but wrong in his denial: for the affirmation

arrangements which they could not have foreseen because political potentialities reside not in human nature simply, but in the historically changing matrix of social life" (p. 62).

[6] "To say that political philosophy is not adequate in principle for all times and conditions is not to say that there are no political principles which have enduring practical truth. . . . To admit this is not to say that the ancient formulation of the principles of political justice and the ancient analysis of the generic kinds of government are not true today. These principles and forms are anterior in their generality to the specific constitutions and more determinate regulations. But the latter belong no less to politics as practical science, and are the focal point of its temporal limitations" (*ibid.*, p. 63, fn. 13).

[7] Vd. "The Demonstration of Democracy," in the *Proceedings of the American Catholic Philosophical Association*, XV, 122-165, in which Dr. Adler undertook to answer the question, "In terms of what moral principles is democracy the best government?" by showing three separable and cumulatively combinable elements of political justice: the combination of all three elements constitutes democratic government and indicates its intrinsic, moral superiority over inferior forms which possess only one or at most two of the elements of political justice.

that there is a univocal moral criterion for distinguishing all good from all bad forms of government does not necessitate the denial of subordinate criteria in terms of which one good form may be morally superior to another; and the affirmation of a moral gradation among good governments does not require the denial of the prior, and independent, moral distinction between all good and all bad forms. Freed from their adventitious errors, the two affirmative truths could be combined in a political theory which embraced both a single *generic* distinction between all good and all bad forms of government (with respect to univocal moral qualities commonly and equally shared) and a set of *specific* distinctions among good forms which graded them as morally unequal in a hierarchy of political perfections. In terms of such a theory, it would be possible to see the sense in which democracy shared with all other good forms of government certain generic moral qualities, and at the same time to praise democracy as superior to all the other good forms by reason of its possessing specific moral qualities in excess of these others, just as there is both a generic moral distinction between virtue and vice, and also a subordinate moral specification of the virtues which orders them as lower and higher.

We were able to reach this fundamental agreement partly because, antecedently in our separate work, we had both appreciated the need for distinguishing between two ways in which governments can be normatively classified and ordered. One of us had expressed this distinction in terms of a contrast between ethical and political principles as relevant to the consideration and criticism of types of government;[8] the other had formulated it in terms of a contrast between moral and prudential criteria.[9] Despite the diversity of language, the point involved was the same. A brief explanation of this point is necessary for the understanding of what is to follow.

The central problem in political theory is the classification of states or forms of government. There are, of course, ante-

[8] Vd. Farrell, "The Fate of Representative Government," *loc. cit.*

[9] Vd. Adler, "The Demonstration of Democracy," *loc. cit.*

cedent questions about the nature of the state, the source and locus of political authority, the composition of sovereignty, and the conventional aspects of human society; but throughout the history of political thought, the philosophers have been concerned with one problem above all others, namely, what are the criteria of good and bad in the political order. The problem is not always understood in the same way. Sometimes the search for normative standards is only for the sake of distinguishing between good and bad states; sometimes it is for the sake of making further distinctions among good states as graded in excellence, or among forms of government as better and worse. In any case, however, it is proper to the nature of political philosophy as practical that its main concern should be with norms. As *being* is the pervasive object of all speculative thought, so *good* dominates every practical inquiry, whether such inquiry be more or less remote from the exigencies of action, i.e., whether it is speculatively-practical (the level of political *theory*), practically-practical (the level of political *policy*) or purely practical (the level of political *action*, of decision and command). The central problem of political theory is, therefore, not any sort of classification, but a classification which involves some kind of normative ordering. It will not only define and distinguish different forms of government, but it will judge them as good and bad, as better and worse. By thus discriminating the desirable from the undesirable, and the more from the less desirable, political theory plays its part in the direction of political action, even though from afar.

Now, in the sphere of the good and bad, we are called upon to judge both means and ends. The primary distinction is between good and bad ends, and anything, whether a single act or a form of government, is to be judged as good or bad according to the character of its end. But among diverse means to the same good end, one can be better than another because it is a more efficient means for achieving that end. And anything which is not the complete and final good may be good both as an intermediate end, and as a means to a more ultimate, or to the last, end. Hence, in the normative classification of forms

of government, the following possibilities confront the political philosopher: (1) governments may be viewed entirely as means and as so viewed they may be (a) good or bad according to the ultimate end they serve, and (b) the several good forms may be ranked as better and worse according to the efficiency with which they serve the same good end, or the degree to which they realize the aspects of goodness intrinsic to that end; or (2) forms of government may also be viewed as intermediate ends (i. e., objectives of political action) and, as so viewed, forms, all of which are good by reason of the end they serve, may also be ranked as better and worse according to their intrinsic grade of goodness as political objectives. It will be seen at once that if there is a generic moral distinction between all good and all bad forms of government, that must be made either in terms of the ends they serve or, with regard to forms of government as intermediate ends, as themselves objectives of political action. In the latter case, the generic equality of all good forms must be due to their common moral properties as ends. In either case, the classification is moral because it is by reference to the goodness of ends. The only question arises with respect to the subordinate ordering of the good forms of government *inter se*. Forms of government, equal in their generic goodness, may be further graded in excellence *either extrinsically* as more and less efficient means to one and the same good end, *or intrinsically* as intermediate ends, not only diverse in species but also unequal in perfection, and hence hierarchically ordered.[10] Now what we have respectively called " ethical principles " and " moral criteria " are those standards of judgment which classify and grade forms of government by referring them to ultimate ends or by regarding them as inter-

[10] As will subsequently be shown, there is no incompatibility between two orderings of the specifically distinct forms of government: as diverse intermediate ends, hierarchically ordered in grade of goodness, and as means to a more ultimate end, ordered extrinsically as more and less complete realizations of that ultimate end. Neither mode of ordering precludes the other, nor does one make the other unnecessary, for that which is truly an intermediate end, a *bonum honestum* and not a mere *bonum utile*, must always be viewed in both ways—both in its goodness as an end, and in its goodness as a means.

mediate ends; and what we have respectively called "political principles" and "prudential criteria" are those standards of judgment which classify and grade good forms of government by regarding them as more and less efficient means to the same end.[11]

Our agreement, therefore, about the complementary character of a single generic distinction between all good and all bad forms of government and a set of specific distinctions among good governments which orders them as unequal in worth, must not be interpreted to mean that only the former is made on moral grounds, whereas the latter are entirely in terms of prudential criteria. To place that interpretation upon our agreement is to destroy its peculiar merit as a resolution of our original opposition, and moreover it nullifies the contribution which we think our analysis can make. The central defect of traditional political theory is precisely that it supposes that no ordering of diverse good forms of government (all generically

[11] The language is not difficult to justify. In the traditional distinction between the moral virtues and prudence, we say that the moral virtues appoint the end, whereas prudence rightly determines the means thereto. In saying this, we are considering true and perfect prudence, not false or imperfect prudence, for true and perfect prudence consists in rightly determining the means, not for any end, but only for the right end, the end of an appetite rectified by the moral virtues. Hence, to divide prudence against the moral virtues—or prudential against moral criteria of normative judgment—is not to imply that prudence is immoral, or that prudential criteria are standards of *mere expediency*. That would be true only if "prudence" and "prudential" were used to signify false or imperfect prudence; it cannot be true if these words signify true and perfect prudence, for then the prudential judgment about the efficiency of the means presupposes rightly appointed ends; and the whole distinction between moral and prudential reduces to a distinction between judgments about ends and judgments about the relative worth of diverse means to the same good end. Such judgments of efficiency, or expediency, with regard to means are not immoral; on the contrary, they are precisely the work of prudence within the sphere of moral activity, a work which makes prudence an indispensable supplement to, and inseparably involved in, the moral virtues. There is no difficulty in seeing that the same thing is intended by "ethical principles" as by "moral criteria." That the phrase "political principles" signifies the same thing as "prudential criteria" is revealed by the fact that it was used to discuss thoses subordinate differences among all good forms of government in terms of which they are more or less adapted, under certain types of contingent circumstances, to realizing with greater or less efficiency the one end which all good governments serve.

equal in their goodness) can grade the species as of greater or less worth except on prudential grounds (in terms of more or less efficiency). Whether monarchy be called the best of the good forms, or the mixed regime, or even democracy, such judgments must, according to traditional teaching, express only a prudential estimate of their worth as means. The failure to see that judgments can be made which express a moral estimate of their worth as ends (and which order the several good forms in a hierarchy of moral species) is precisely the failure in ancient and mediaeval political thought that we aim to correct. Our point of departure from traditional doctrine is signalized by the fact that we are willing to accept the question, " In terms of what moral criteria is democracy the best form of government? " as a significant question; for according to traditional opinion the question itself should be rejected, since one good form of government is not thought to be better than another, or best of all, *on moral grounds*.[12]

[12] It is important to emphasize the acceptance of the question itself as prior in significance to the answer which is implied. The question really is double: it asks, first, whether there are moral criteria in terms of which the several good forms of government can be graded in excellence; and it asks, second, whether in terms of such criteria democracy is best. Now the first question can be answered affirmatively, though the second be answered negatively; whereas the second cannot be answered at all if the first is answered negatively. Hence, a major contribution to political theory is contained in an affirmative answer to the first question; in contrast, an affirmative answer to the second question is minor. When they are taken together, of course, there is reason for identifying what is new here in political theory with the theory of democracy.

One further point of clarification must be added. To say that there are several species of good government, constituting a moral hierarchy of political ends, does not exclude the possibility that, within each of these species, there be accidental variants which are subject to prudential ordering as more or less efficient realizations of the same good end. We shall use the word " species " strictly to designate forms of governments essentially distinct, on moral grounds, as ends; and we shall use the word " variety " when we wish to name the subordinate accidental variations in type within each species, with respect to whose comparative worth only a prudential ordering is possible. We shall also use the phrase " form of government " only to name a true species, an essentially distinct kind of government, necessarily inferior or superior to other forms in moral excellence; in contrast, whenever we wish to refer to the varieties of a given species, accidentally distinct from one another, we shall speak of " modes of government." Since modes of government will

Our resolution of the basic disagreement between us (which understanding revealed to be only an apparent contradiction), has also enabled us to view traditional doctrine (the political theory of Aristotle and St. Thomas) in the same light, and in that light to appraise the departure we are prepared to defend. Here, too, at first we differed: for one of us tended to overestimate the perfection of the great teachers, while the other tended to exaggerate their deficiencies. Again the truth, as we finally have come to see it, lies in the middle ground where both the soundness of traditional doctrine is duly respected, and its inadequacies are frankly conceded. With respect to the generic distinction between all good and all bad forms of government, the traditional doctrine is clearly sound, and this fundamental verity includes, of course, all the antecedent truths concerning the natural foundations of the whole political order, the source and character of authority, the locus of sovereignty, the ordination of the state to man's ultimate benefit. With respect to the specific distinctions among good forms of government, and the moral hierarchy of such forms, the traditional doctrine is just as clearly inadequate. But whereas the soundness of traditional doctrine (on the generic level) must be understood in terms of all the aforementioned truths, prior to the classification of political forms, the inadequacy of traditional doctrine (on the specific level) cannot be explained simply as a lack of analysis. This inadequacy, when traced to its sources, is seen to arise, in part, from certain confusions between what are truly specific forms of government and what are only accidental modes,[13] in part from certain mistakes, such as the Aristotelian error concerning natural slavery, or the Thomistic identification of all good government with constitutional government, and in part from the failure to see that forms of government as intermediate ends must be evaluated as ends, having the intrinsic

be comparable only if they are varieties of the same species, they must be equal in moral excellence, and differ *inter se* only in efficiency or the degree to which they realize the grade of goodness intrinsic to the form of government of which they are accidentally determinate types.

[13] Vd. fn. 12 *supra*.

excellence proper to any *bonum honestum*, and cannot merely be regarded as means, having the extrinsic worth proper to any *bonum utile*. In the light of this view of traditional doctrine, we appraise the theory of democracy as a political theory which retains all the fundamental truths of the great tradition, and which, after removing confusions and correcting errors, is able to remedy the tradition's inadequacy within the framework of its own essential principles, by completing the classification of the forms of government in terms of specific distinctions generating a moral hierarchy.[14]

But our appraisal of the theory of democracy is not universally shared by all who, like ourselves, claim to be disciples of Aristotle and St. Thomas in the field of political thought. There are many who think that traditional principles present insuperable obstacles to the theoretical developments we propose; who think, whatever their view of democracy, that the only possible moral classification of states is the one which divides all good forms from all bad forms, *generically*; and who insist that any attempt to order the specifically distinct good forms in a moral hierarchy must necessarily violate principles to which we, like they, adhere. We are acquainted with the objections they have offered, and the difficulties they have raised. Our task, there-

[14] If the errors in traditional theory be regarded as accidents due to the historic limitations of its great exponents (thus, Aristotle's views on slavery may be due to his immersion in the accidents of Greek culture, and St. Thomas's identification of all good government with constitutional government may be due to the mediaeval view of a ruler's responsibility to the people because of his responsibility to God, the latter being sanctioned by the supremacy of the spiritual over the temporal power), then there is a sense in which the whole truth of the theory of democracy is implicitly contained in traditional doctrines. When those doctrines are sufficiently abstracted from the embodiments of historically local imagery and example, when their principles are understood in the most formal light (vd. fn. 2 *supra*), it will be found that Aristotle not only distinguished properly between royal (non-constitutional) and constitutional forms of government, but made this the most basic moral distinction among good governmental forms; and it will also be found that the equality of all men as political animals because equal in their specific rationality is certainly affirmed by St. Augustine, and less plainly by St. Thomas because of his devotion to Aristotle. These two principles need only be developed in all their implications to arrive at the theory of democracy—the moral gradation of three good forms of government, of which the best is democratic.

fore, is to defend the theory—to answer these objections and to remove these difficulties. So far as a simple understanding of the theory is concerned, that is already available.[15] But this understanding is too simple, as the aforementioned difficulties and objections have made plain. What is needed, therefore, is an exhaustive analysis, carrying every point to its ultimate metaphysical or psychological roots (for the basic principles of any political theory must ultimately rest on metaphysical truths about being and goodness, and on psychological truths about the nature of man). The thesis that democracy is, on moral grounds, the best form of government cannot be completely demonstrated—in fact, it cannot even be shown to be demonstrable, since it depends upon the possibility of a moral hierarchy of political forms—without an elaborate development of the concept of the common good, without re-examining the nature of the state as an end and as a means, without distinguishing and ordering the modes of human happiness, without making more precise what is involved in the notion of constitutionality, without defining the status of citizenship in relation to subjection and slavery. With this in mind, we shall undertake to expound the theory of democracy in a series of articles (the subsequent parts of this work), each of which will deal with a fundamental aspect of the theory that needs more penetrating analysis or further clarification; and by so doing we hope to accomplish two purposes at once: giving, on the one hand, a more adequate exposition of the theory itself, not only certifying the demonstration of democracy which is its conclusion, but, more than that, revealing that conclusion's deepest roots; and, on the other hand, answering all the objections, removing all the difficulties, which have so far been raised.

In order to prepare for what is to follow, it is necessary, in this introductory part, to present a compact summary of the theory itself—by stating its major theses without supporting argument

[15] It can be constructed by any reader who will combine the analysis made in "The Fate of Representative Government" with that made in "The Demonstration of Democracy," according to the resolution of the apparent disagreement between these two analyses which we have herein suggested.

or adequate analysis. This will enable us to mark the major deviations from traditional doctrine (both by way of addition and of correction); and also to formulate the objections and difficulties in terms of which we shall organize the remaining divisions of our work. We shall thus be able to give the reader, in general outline, a picture of the work as a whole.

3. The summary can be effected by a statement of four theses, each with a minimum of elaboration:

Thesis One: There is a generic moral criterion by which all good forms of government can be distinguished from all bad forms.

a. In terms of this criterion all the good forms are generically equal in their moral goodness, and all the bad forms are generically equal in their moral depravity.

b. This single criterion is the ultimate end to which all political activity should be ordained, according to the nature of man and the nature of the state.

c. That ultimate end is the happiness of men, which is sometimes spoken of as "the life of virtue."

d. Human happiness as the *finis causa* of government is not identical with the common good as the *finis effectus* of government. Three terms must be distinguished here:

(1) Happiness, which is a good common to every human person because of his specific humanity;

(2) The political common good (the good which is identical with the well-being of a community of men as politically organized, i. e., the state)

(a) As an ideal terminus of perfection—the *finis causa* of political activity aiming at the progressive development of political institutions,

(b) As some actual grade of accomplished perfection—the *finis effectus* of political activity, as well as the *finis causa* of political activity aiming at the preservation of already existing political institutions.

In order to aim at human happiness as its ultimate end, the political activity which constitutes every good form of government must be directed to the ideal terminus of progress in the political order itself.

Thesis Two: There are three specific moral criteria by which three good forms of government can be distinguished and ordered as grades of political perfection.

a. In terms of these criteria, the several forms of government, equal in their generic goodness, are unequal in the degree of specific perfection attained.

b. Because the criteria are moral and intrinsic to the forms of government they determine, one good form of government can be regarded as morally better than another, not merely as prudentially better in terms of criteria of efficiency.

c. The several criteria are separable and cumulative, for otherwise they could not specify the several forms of government as hierarchically graded in degrees of specific perfection.

(1) Thus, if the three criteria be represented by the letters A, B, and C, the three forms of government will be constituted in the following manner.

I: by the possession of A, and the privation of B and C.
II: by the possession of A and B, and the privation of C.
III: by the possession of A and B and C.

(2) As so ordered hierarchically, the best form of government will not only possess an element of perfection lacked by its inferiors, but will include the elements of perfection they possess; similarly, the better form of government will possess the element of perfection possessed by its inferior, as well as exceed that inferior by possessing an element of perfection which it lacks.

(3) The perfections constitutive of inferior forms are possessed *eminenter* by the superior form when they are possessed in conjunction with that additional perfection by which the superior form exceeds its inferiors. Thus, the A factor is only analogically common to I and II, because it is possessed simply in the case of I, and *eminenter* in the case of II, elevated in the latter case by conjunction with the B factor; similarly, the A and B factors are only analogically common to I, II, and III.

d. The three criteria are factors constitutive of the political common good regarded primarily as the *finis effectus* of government, and secondarily as the *finis causa* of political activity aiming at the preservation of already existing political institutions.

(1) One good form of government is thus distinguished from another according to the grade of political common good which is its effective accomplishment.

(2) Although there is only one political common good as the ideal terminus of progress in the political order, there are three distinct political common goods as diverse grades of accomplished perfection; and these three grades are analogical as species of common good.

(3) Since each specific grade of accomplished political perfection is not only the *finis effectus* of political activity, but also the *finis causa* of political activity directed to the preservation of existing institutions, the several forms of good government can be regarded as ends.

(a) As an end, a good form of government is a good to be maintained or preserved by the members of the community, both rulers and ruled.

(b) The specification and gradation of three good forms of government is, therefore, by reference to these forms of government as unequally good ends in the sphere of political activity on the part of rulers and ruled.

(c) This specification of forms of governments, regarded as ends, is not inconsistent with the generic distinction between all good forms and all bad, because the accomplished common good is never an ultimate, but only an intermediate end; beyond it there is human happiness as the ultimate end which is approached in proportion as the ideal common good of the political order is progressively realized.

(d) Because it is an intermediate end, and hence also a means, each form of good government is not only a certain grade of political goodness already accomplished, but both a stage in the progressive realization of the ideal common good, and accordingly a less or more efficient means toward the ultimate end, the happiness of every person who is a member of the human community.

e. The three factors (in terms of which the specific forms of good government are differentially constituted) are three separable and cumulative elements of political justice.

(1) The political community is an organized multitude of men living together in the unity of peace.

(2) The state, or political community, is not the only organized multitude of men living together in the unity of peace.

(a) Communities can be distinguished according to their causes, final and efficient, and thus we distinguish between the Church, as a supernatural community, and all other societies as natural.

(b) Among natural communities, there are two further principles of distinction: first, according as the end of association is *the* human good *simpliciter*, or *a* human good *secundum quid*, and thus, the family, the village, and the state, are distinguished from all economic or technical corporations; second, according as the association for the sake of the human good *simpliciter* is more or less self-sufficient and more or less adequate to the realization of the end, and thus the state is distinguished from family and village as perfect from imperfect communities.

(3) Justice is the efficient principle of order in any community of men, and as such justice is a source of that unity of peace without which no community exists.

(a) The peaceful organization of any multitude of men requires government, and the distinction of rulers and ruled.

(b) The types of government are distinguished according to the natures of the persons associated and the conditions of their association: thus, domestic and tribal, or village, governments are distinguished from political government, i. e., the type of government appropriate to states, or political communities, in which the multitude includes men of unrelated families.

(c) Political justice is the principle of order in political communities, and as such is constitutive of government as the organization of its members according to relations of ruler and ruled.

(d) As a principle of order, political justice is both final and efficient, since the end by and for which a form of government exists is always a just order.

(4) Government is good in proportion as it is just, and one form of political government is better than another in proportion as it is more just. Since there are separable

and cumulative elements of political justice, one government is better than another by virtue of possessing an element of justice not possessed by its inferior.

f. The three elements of political justice can be distinguished in the following manner.

(1) The first is discovered by answering the question, How is *de facto* political power exercised by those who possess it, regardless of how they have come to possess it? The first principle of justice is that political power be exercised for the sake of preserving the existing good of the community. This principle applies to any member of the community who acts politically, but primarily, of course, to those who exercise ruling power, and only secondarily, of course, to those who exercise whatever power they possess as men who are being ruled. By this criterion, injustice consists, on the part of the rulers, in the exercise of power for their own sake; and similarly, on the part of the ruled, injustice consists in disobedience to just rule, in order to satisfy private interests at the expense of the common good.

(2) The second is discovered by answering the question, How is political power constituted *de jure*, that is, how do men come to possess political power over other men, by *right*, rather than by *force* or *guile* or *accident*? This question must be understood in terms of the basic truth that no man *naturally* possesses *political* power over other men, as, in the case of the family, parents *naturally* possess *domestic* power over their children. Hence, in order to possess political power by right, the men who rule must derive that power legitimately from whatever is its natural source. Its natural source is the community itself, which according to its very nature has authority over its individual members. The mode of derivation is by means of a constitution, written or unwritten, which defines the offices of rule, determines the scope of the powers and duties belonging to such offices, and, above all, sets up the political status of citizenship, defining the powers and duties of the ruled. The second principle of justice, is therefore, the constitutionality of government, and this principle applies equally to the status of ruler and of ruled, for it defines the authority of men who exercise governing powers in terms of the offices they occupy, and it defines the

authority of men who are governed in terms of the fundamental status of citizenship.

(a) This second principle of justice turns on the distinction between authority and force in government. It involves the notion of " popular sovereignty " in the strict sense that the natural locus of political authority is in the political community itself, and not in any of its members. Individual men become vested with such authority only through becoming representatives of the community as a whole in relation to its members, and this can be effected only by means of a constitution which creates and defines governmental offices, so that men rule others only as office-holders, rather than simply as men superior by force or guile or other accidents, such as virtue. Thus, constitutional government is government by law rather than by men, for under constitutional government, men govern only through holding offices appointed by constitutional law, whether that be written or customary.

(b) This second principle of justice is separable from the first. Political power can be either *de facto* or *de jure*. As merely *de facto* (not legitimately constituted), the power according to the first criterion, can be exercised either justly or unjustly by those who possess it. And legitimately constituted power (power conjoined with authority by virtue of the offices in which such power is constitutionally vested—the offices representing the natural sovereignty of the community itself) can be exercised either justly or unjustly, according to the first criterion. Hence, a just exercise of power can be separated from a just constitution of power: on the one hand, power, whether *de facto* or *de jure*, can be justly or unjustly exercised; on the other hand, in addition to power's being justly exercised, it can be justly constituted. So we see that the two factors are separable and cumulative, and hence that the form of government in which both factors are present is more just than the form of government in which only the first factor is present.

(3) The third is discovered by answering the question, What men shall be admitted to the fundamental status of

citizenship, as that status is defined under constitutional government? The significance of the question can be increased by asking whether any of the familiar badges of political privilege (wealth, nobility of birth, race, color, sex, or even acquired virtue) are just conditions of enfranchisement or of disfranchisement? The negative answer follows from the very nature of distributive justice, as awarding equal shares to equals. Since all men are by nature political animals, and since this is the source of their equality as members of the political community, the third principle of justice is that all men (except those who must be committed to asylums as charges upon the care of the community) should be enfranchised as citizens.

(a) This principle of justice does not apply in the same way to the distribution of offices, as it does to the status of citizenship. In the latter case, distributive justice consists in giving equal shares to equals; whereas in the former case, it consists in treating unequals unequally, for according as men are unequal in merit and virtue, they should be assigned to different functions and positions in the community. The equality of all men as citizens, due to their specific humanity, is not inconsistent with functional inequalities due to their individual differences. On the contrary, this principle of distributive justice, applied to the selection of men for various offices, requires that such selection be determined by the fitness of the man to the office, whether that fitness be a matter of nature or virtue. In order for this mode of selection to become operative, it is necessary that there be no unjust obstacles in the way of those who are fitted by nature or virtue; or, in other words, the conditions of office-holding must not involve any false criteria of political privilege (such as wealth, the accidents of birth, sex, race, etc.). Only when any man, who is a citizen, is also *entitled* to hold office, will it be true that the best-fitted, by nature or virtue, can be selected from the citizenry. Only thus can a natural aristocracy take the place of the false and artificial aristocracies in which governmental office is restricted to certain privileged classes. Hence, this

third criterion—which is the principle of distributive justice—must be formulated by two clauses: (1) all men shall have the status of citizenship; and (2) all citizens shall be entitled to hold office. There are, of course, further determinations of this principle (with respect to just exclusions from citizenship and with respect to just requirements for the holding of certain offices), but we need not discuss these here; nor need we here discuss the various ways in which, under a constitutional government with universal suffrage, men shall be selected to fill political offices. The latter problem is a question of efficiency, rather than of justice.

(b) This third principle of justice is separable from the first two. If the government is non-constitutional, there is, of course, no question about distributive justice, with respect either to the status of citizenship, or to conditions of office-holding, for strictly under non-constitutional government there are neither citizens nor offices. But constitutional governments may be of two sorts according to the justice or injustice of the constitution itself. An unjust constitution is one in which some men are unjustly excluded from citizenship or unjustly barred from office. A just constitution is one which applies the principle of distributive justice perfectly, with respect both to office-holding and suffrage (i.e., the status of a citizenship, subsequently to be defined). (It should be added that all unjust constitutions are not equally unjust, for the perfection of distributive justice may be more or less approximated according as more men are admitted to citizenship or according as one or another unjust criterion of political privilege is abolished. This explains the greater justice in what are traditionally called the mixed regimes, even though these mixed regimes, as traditionally conceived, are far from being perfectly just.) Thus, we see that a government maybe just because political power is justly exercised; it may in addition be more just because that power is justly possessed by legitimate constitution; or it may, furthermore, be most just because that constitution is itself perfectly just in the sense

that political power and authority are justly distributed.

g. In the light of these elements of justice, the three good forms of government can be distinguished, ordered, and named.

(1) Using the symbols A, B, and C, for the three elements of political justice as enumerated, and using the Roman numbers I, II, and III to designate the three forms of government hierarchically ordered in grade of goodness, we have:

I: A (B, C). *The parentheses here signify privation.*
II: AB (C)
III: ABC

(2) We can name these three good forms by appropriating certain traditional words, and giving them a rigidly precise, as well as new, significance. Thus:

I: *Royal government* (which is non-constitutional government; as we shall see, this can also be called "benevolent despotism.")

II: *Republican government* (which is constitutional government with restricted suffrage, and privileged classes, etc.)

III: *Democratic government* (which is constitutional government with universal suffrage, and no privileged classes.)

(3) All good government is either royal or constitutional, and if constitutional either republican or democratic.

(4) Democracy can be precisely defined as constitutional government, in which legitimate power is exercised for the community's well-being, in which all men can actively participate as citizens, and any man is entitled to hold office, and in which the political activity of all (both officers and citizens) is directed to the ultimate political ideal and human happiness. The last clause of this definition goes beyond what is peculiar to the definition of democracy as a specific form of government, in that it mentions the generic criterion common to all good forms of government.

Thesis Three: In addition to the three specific forms of good government, there are accidental modes of each.

a. These subordinate accidental distinctions are made in terms of various administrative devices, the ways in which men

come to power or are selected to hold office, the way in which political power is unified in the hands of one man or divided among many, whether the many be the deputies of the one, or office holders, etc.

b. The traditional names for " kinds " of government (such as, monarchy, aristocracy, polity, tyranny, oligarchy, and democracy) do not name specific forms of government, but accidental modes of government, falling under one or another of these specific forms.

(1) Thus, for example, monarchy does not name a form of government, for monarchy may be either constitutional or non-constitutional. Monarchy merely names a mode of administration, one way in which political power can be organized, either by force or constitutionally. If the government is Royal, monarchy is that mode of administration in which all the power is concentrated in the hands of one man, to be distributed to others only as his personal deputies; if the government is Republican or Democratic, monarchy simply means that there is one man at the head of the government, and that other offices are held by men, according to constitutional conditions, and not simply as personal deputies of the presiding man. Royal and Republican government need not be monarchical, as the various Roman triumvirates plainly show. And the monarchical mode has many constitutional varieties, as we see in such cases as the hereditary king and selected prime minister, or the elected president and the selected premier, responsible in both cases to an elected parliament; or the elected president and the appointed cabinet, etc.

(2) Such names as " oligarchy " and " democracy " are sometimes used to name modalities of good government, in which case they usually signify modes of constitutional government, different according to the extension of suffrage and privilege to the rich or to the poor. In neither case, however, is the government Democratic, for in ancient " democracies " i. e., government by the poor, " the poor " were freemen of small property, not slaves, or artisans, etc. When " oligarchy " and " democracy " are so used, as by Aristotle, then " polity " names a mixed form of government, combining the other two; it is, therefore, a relatively more just mode of Republican constitution than the two simple modes, because there

is more extensive suffrage, and wider distribution of political privileges.

(3) In Roman and mediaeval, as opposed to Aristotelian, usage, such names as "monarchy," "aristocracy," and "polity" signify modes of constitutional government, Republican not Democratic in form, the modes being distinguished either according to the distribution of political power to the royal one, the patrician few, or the plebeian many; or according to the partial good which appears to be stressed by the particular mode (unity, virtue, freedom and equality). In this context, a mixed regime is one which combines these several modal aspects under a Republican form of government which, while constitutional, is far from being justly constituted, so far as suffrage and political privilege are concerned.

(4) In modern times, the phrase "representative government" is sometimes used to signify the Democratic form, but that wrongly identifies the Democratic form with one of its modes, in which there is legislation by a parliament of elected representatives of the citizens. Democratic government usually assumes the representative mode under modern conditions in which political communities are extremely large in population, etc., but representative, legislative parliaments are not involved in the essence of the Democratic form.

(5) Some of the traditional names signify modes of bad government, but one name, "tyranny" has become identified with bad government in general, because it has been used to signify the violation of the generic trait of all good government. In any case, as we shall show, "tyranny," "oligarchy" and "democracy" do not name bad *forms* of government, but either what is common to all bad governments, or certain *modes* of one or another bad form.

c. We shall use the words "Royal," "Republican" and "Democratic"—with capitalized initial letters—to name the three good forms of government. All other names, with small letters ("democracy" included) will signify modalities of good or bad forms.

d. The question, Whether one mode of government is better than another? can be answered in two ways:

(1) Either prudentially, as when, in certain circumstances, one mode of a given form of government is judged to be more efficient than another in realizing the goodness intrinsic to that form;

(2) Or morally, as when one mode of Republican government (i. e., the mixed regime) is judged to be more just than other modes (i. e., the pure modes) because it involves a greater approximation to the principle of distributive justice under constitutional government.

Thesis Four: The single criterion by which all good forms of government are generically distinguished from all bad forms is causally related to the several (separable and cumulative) criteria by which the genus of good government is further specified, and its three species are hierarchically ordered.

a. Unless a form of government is generically good, it cannot possess any of the specific properties of good government. All political corruption begins with the violation of the generic principle, and although one or another of the *specific* properties may *appear* to survive for a time, what survives is only a travesty or counterfeit of the good principle. Thus, the corrupt Roman emperors, for a time, continued to conform outwardly to constitutional requirements.

b. Each specific form of good government is necessarily only a stage in the progressive development of political institutions, because, by reason of its generic goodness, its ultimate aim is not simply to preserve itself, but to transcend itself, or to fulfill itself by passing from a partial to a complete realization of its intrinsic goodness. Thus, Royal government cannot be good unless it aims to supersede itself by Republican government; and Republican government, in turn, cannot be good unless it aims to supersede itself by Democratic government; and this must aim to realize itself to the fullness of its potentialities.

c. The specific differentiation of three good forms of government, ordered in a moral hierarchy, is indispensable to the significance of the generic principle that good government involves political activity which aims at the ideal common good as the terminus of political progress, and through aiming at this ideal common good seeks to create the political conditions adequate for the realization of happiness or the life of virtue.

d. All the bad forms of government can be classified as corruptions in a twofold manner: first, with respect to the generic criterion of political goodness, the violation of which is the primary cause of all corruptions in the political order; and second, with respect to the various specific factors, which can be corrupted separately and cumulatively, in a retrogressive series which goes from bad to worse.

e. The dynamism of political change—revolutions which are either progressive or retrogressive in character—must be explained in terms of the specific elements of good government: for these are either in privation, and hence in potentiality, in inferior forms; or when they have been actually attained, they are susceptible to corruption. The worst form of government is, therefore, not the *direct* opposite of the best, but the one which is furthest removed from the best: it is not the corruption of Royal government, but the corruption of Democracy which, by a series of retrogressive steps, reverses the work of progress and ultimately reaches the negation of every principle of political justice. The corruption of Royal government, in contrast, is the negation of only a single principle of political justice. Thus, the transition from a benevolent despotism to a despotic tyranny is much less of a political change, in the way of corruption, than the transition from a Democracy—even when only partially realized—to the tyranny of totalitarianism.

4. The conclusion (that Democracy is, on moral grounds, the best form of government) can now be seen as an integral part of a whole political theory. Unless the four theses, which we have just outlined, can be defended, we doubt that the conclusion in question is tenable. Our conviction that the conclusion is tenable, reflects our judgment that the theory which has just been summarized is true—that all difficulties can be resolved, and all objections answered. Before we proceed to enumerate these difficulties and objections, it might be well briefly to mention those points in traditional doctrine which, in the light of this theory, must be judged either as ambiguous or incorrect.[16] We shall do this by stating positions and proposi-

[16] It is unnecessary to repeat here the points on which this theory agrees with traditional doctrine, or the way in which this theory supplements the inadequacy of traditional analysis. That has already been sufficiently indicated in Section 2 *supra*.

tions without referring them to their historical sources, in order to concentrate attention on doctrine itself and to avoid all arguments about the interpretation of texts, or appeals to authority.

The theory which has just been outlined can be true only if the following propositions are false: (1) that some men are by nature slaves and are, therefore, not unjustly treated if they are used entirely as a means for the good of other men; (2) that the only distinction among good forms of government is in terms of whether the rule is by the one, or the few, or the many, and that, as so distinguished, one good form is better than another only in terms of efficiency; (3) that the only distinction among good forms of government is in terms of the aspect of the common good (unity, virtue, liberty) which each tends to realize, and that, as so distinguished, the best form of government is the mixed regime which tends to realize all three aspects; (4) that there is only one common good in the temporal order, and that this common good is at once both the good of a political community and the good of its members; (5) that the only moral distinction among forms of government must be in terms of an end beyond themselves which they serve, and cannot be in terms of their own intrinsic goodness as intermediate ends, which is equivalent to saying that there cannot be any specific moral distinction among good forms of government, but only a generic distinction between good and bad; (6) that the only good which is higher than the political common good is a good not of the temporal order, for it is the divine good, participation in which constitutes the eternal happiness of the blessed; and this is equivalent to saying that the well-being of the state is the highest good in the temporal order, a good which men also enjoy only by participation.

Underlying or related to these false propositions are certain statements which are fundamentally ambiguous. The theory we have just outlined can be made intelligible only if these ambiguities are clarified: (1) that the common good is the end of the state; (2) that the common good consists in the life of virtue; (3) that unity, virtue, and liberty, are aspects of the common good, and in such wise that one of these aspects can

be realized in the total absence of the other two (as by the so-called pure forms of government) or can be realized in combination (as by the so-called mixed regime); (4) that the common good is a means to happiness; (5) that happiness is the ultimate perfection of human nature. All of these statements either say too much or too little. Their ambiguity resides in the failure to distinguish the multiple meanings of such fundamental words as " state," " government," " common good," " happiness," " life of virtue "; even more deeply, perhaps, in failure to use such words as " end " and " means " with sufficient discrimination. In addition to these cited ambiguities is the long, and therefore unmentionable, list of ambiguous statements which discuss " kinds of government " and talk of better and worse, without distinguishing between forms of government and modalities of these forms, without explicitly considering whether the judgment of better or worse is prudential or moral, and without even facing the possibility that, in addition to the generic distinction between all good and all bad forms of government, there are specific moral distinctions among good forms. Most statements using the traditional six names for " kinds of government " are ambiguous for one or another of these reasons. In fact, these names—monarchy, aristocracy, polity, tyranny, oligarchy, and democracy—have been so variously used by different writers, and have accumulated such conflicting overtones of meaning from their employment in diverse historical contexts, that it is almost impossible to purify them of ambiguity and confusion in order to use them as technical terms in precise, analytical discourse.

Now, to give a reasoned exposition of the theory of democracy—one which will provide an adequate demonstration of its ultimate conclusion—it is necessary to do three things: first, to show the compatibility and independence of the generic and specific criteria, which is to show the possibility of distinguishing between all good and all bad forms of government, prior to making specific distinctions among the good forms; second, to show that the three specific criteria are separable and cumulative, so that a hierarchy of the good forms is seen to be

possible; and third, to show that each of these specific criteria is morally intrinsic to the goodness of government, by validating each, in the light of human nature and the nature of the state, as indispensable to the fulfillment of the ideal common good. This third step can also be described as a process of showing that each of the three criteria is truly a principle of political justice and that only by the summation of all three can the perfection which is possible in the political order be fully realized.

But in order to accomplish these three steps, it is also necessary to give an acceptable account of the order of goods, both temporal and eternal, and especially of the order of goods which are temporal ends, whether ultimate or intermediate, for unless the various types of temporal common good can be discriminated and related, unless the political common good can be distinguished from the common good which is happiness, unless the analogical modes of the political common good can be separated, it will be impossible to do what is required. The test of truth in any practical theory is the validity of its account of means and ends. The truth of the theory of democracy must be made evident in these terms. Yet it is precisely in these terms that two fundamental objections have been raised to the theory. The first has been formulated in the thesis that there is only one political common good, and hence only one end in the political order, from which it follows that a moral specification of three good forms of government, hierarchically ordered, is impossible.[17] The second is generated by that analysis of temporal goods, which makes the political common good, or the well-being of the state, supreme in the temporal order, and which frees man from total subservience to the state only by reason of his ordination to a higher, non-temporal good, the Divine good.[18]

[17] Vd. Professor Charles O'Neil, in a review of the Fifteenth Proceedings of the American Catholic Philosophical Association, *The New Scholasticism,* January, 1941, XV, 1, 75-80; and the reply by Mortimer Adler, "The Demonstrability of Democracy," in *The New Scholasticism,* March, 1941, XV, 2, 162-68.

[18] Vd. Father John F. McCormick, "The Individual and the State," in the *Proceedings of the American Catholic Philosophical Association,* XV, 10-21.

In addition to these two objections, which concern the diversity of goods and their ordering as means and ends, there are two other objections, which raise difficulties concerning the distinction between Royal and Republican government, on the one hand, and the distinction between Republican and Democratic government, on the other. Whereas the first two objections go to the metaphysical roots of the theory of democracy by requiring a reconsideration of such fundamental notions as the common good and happiness, the two objections, now to be mentioned, raise questions which are more narrowly political. One of these questions the proposition that non-constitutional government can be good or just in any true sense. Unless this challenge is met, the distinction between Royal and Republican government, as both good forms, though inferior and superior, cannot be sustained. The other of these questions the proposition that universal suffrage is required by distributive justice, and demands to know why the status of citizenship must be given every man. Unless these questions are answered, the distinction between Republican and Democratic government cannot be sustained. Failure on both these points would result in the conclusion that there is only one good form of government, so far as moral criteria are concerned; hence, though democracy may be one mode of such good government, it is not a specific form superior to other forms in moral excellence. To succeed on both these points would entail giving an adequate account of the meaning of constitutionality and a precise definition of the status of citizenship (in contrast to slavery and subjection). Although they do not lead us into the deep metaphysical inquiries entailed by the first two objections, these difficulties do, like the first two, call for a re-examination of the nature of man and of the state as the source of every political truth.

It should be apparent at once that the four objections or difficulties touch the very matters which would be central to a reasoned exposition of the theory of Democracy and to the demonstration of its chief conclusion. For that reason we have deemed it both possible and advantageous to develop such an

exposition by treating successively of the matters which these objections call to our attention. In each of the four subsequent parts of this work, we shall answer one of the four objections, in the order named, and at the same time undertake a positive and constructive analysis of the point under consideration. When these four parts are completed, we shall be prepared to give, in a final part, a summary statement of the proof that Democracy is, on moral grounds, the best form of government. In addition, we shall deal, in that concluding part, with the general problem of political dynamism, with the exemplifications of our theory in actual political history, considering both the slow stages of political progress and the manifold occurrences of retrogression or corruption. Finally, we shall ask whether Democracy is anywhere yet realized, or to what degree it is realized in existing governments; and we shall try to state the conditions for the future attainment of Democracy's perfection.

We can now present the reader with a brief outline of the whole work:

Part I: Introductory (the present essay)
Part II: The End of Political Activity: The Common Good
Part III: The End of the State: Happiness
Part IV: The Elements of Political Justice: Constitutionality
Part V: The Elements of Political Justice: Citizenship and Suffrage
Part VI: Conclusion: The Demonstration of Democracy, with reflections on the motions of political history and the future of Democracy.

5. Completely to discharge the task of this introductory part, we must briefly consider several points which are preliminary to all the subsequent analyses. The first of these concerns the Aristotelian distinction between a normative judgment made *absolutely* and one made *relatively*. Awareness of this distinction is indispensable to a sound understanding of any discussion of the best state. The remaining points deal with

certain perplexities of verbal usage which must be clarified—especially the meanings of such words as "ideal," "government," and "state." We proceed at once to these matters in the order named.

(1) *The absolute and the relative.* Aristotle separates two questions: (a) what is the best government absolutely? and (b) what government is best relative to the contingent circumstances of a people at a given time and place? [19] The use of the word "best" in both these questions implies that there can be several forms of government which, while good either absolutely or relatively, are less good by comparison with one which is best, either absolutely or relatively. The distinction itself implies that a given form of government can be the best absolutely, and yet less than best relative to a particular set of historic conditions; or that, conversely, a form of government which is best for a given people living under certain physical and cultural circumstances may not be the best form absolutely.

This distinction must not be confused with the distinction between a moral and a prudential ordering of governmental forms. Such confusion is likely to result from the fact that prudential judgments about political alternatives are usually

[19] Vd. *Politics*, IV, 1. "Government is the subject of a single science which has to consider, what government is best and of what sort it must be, to be most in accordance with our aspirations, if there were no external impediment, and also what kind of government is adapted to particular communities. For the best is often unattainable, and therefore the true legislator and statesman ought to be acquainted, not only with (1) that which is best in the abstract, but also with (2) that which is best relatively to the circumstances. . . . He ought, moreover, to know (4) the form of government which is best suited to communities in general. We should consider, not only what form of government is best, but also what is possible and what is easily attainable by all" (1288^{b} 21-37). The second and fourth questions are aspects of the same problem—what form of government is best *relative* to contingent circumstances, either (2) considered in *this* case, or (4) considered *generally*, i.e., for the most part? Cf. John Stuart Mill: "To inquire into the best form of government in the abstract (as it is called) is not a chimerical, but a highly practical employment of scientific intellect; and to introduce into any country the best institutions which, in the existing state of that country, are capable of, in any tolerable degree, fulfilling the conditions, is one of the most rational objects to which practical effort can address itself." *Essay on Representative Government*, Ch. I.

made with reference to the circumstances of a concrete situation in which means are to be used. Hence it may be thought that the normative judgment made relatively is prudential rather than moral. But it should be remembered that the prudential judgment can be made absolutely, by considering what political means are universally most expedient in view of man's nature and the generality of all contingent circumstances. And, furthermore, those who oppose the notion of a moral ordering of good forms of government would be tacitly admitting such an ordering, if they identified the relative with the prudential judgment; for then it might readily be supposed that the absolute judgment was a moral one. The distinction between the absolute and the relative is, however, independent of the distinction between the moral and the prudential. If one is able to discriminate a best, or a superior from an inferior good, that discrimination, whether it be made on moral or prudential grounds, can be made either absolutely or relatively. In both cases, the absolute judgment is based on a consideration of the universally constant factors in human nature; but when the absolute judgment is about political means as more or less expedient (i. e., a prudential judgment concerning alternative modes of a given form of government), it considers the generality of contingent circumstances, rather than a particular set of historic conditions (which would have to be considered if that prudential judgment were being made relatively rather than absolutely); whereas when an absolute judgment is made about political ends as more or less perfect (i. e., a moral judgment concerning diverse forms of government), it determines the best by reference to the perfection which it is possible for the circumstances to attain, rather than by reference to the actual conditions prevailing in a particular historic situation (which would have to be considered if that moral judgment were being made relatively rather than absolutely).

This last point is of great importance, because it establishes a correlation between the relative and absolute modes of moral judgment about political forms. That form of government which is, on moral grounds, the best *absolutely* must also be

the best *relative* to that set of circumstances which are perfect conditions of social life. In so far as such conditions do not exist, the absolutely best and the relatively best will be divergent; relative to less perfect conditions, a form of government which is inferior *absolutely* will be best *relatively* because most suitable to these concrete conditions. And to the extent that there is, historically, improvement in the physical, economic, and cultural conditions of human society, there is in political history a progressive motion, though hardly in a straight line, toward the limiting case in which the political form that is best relative to existing conditions is also the best absolutely. This distinction between the absolute and the relative modes of judgment enables us to deal with the dynamics of political change in terms of the potentialities to be fulfilled and the ideal limits of that fulfillment.[20]

In the light of this distinction, our conclusion about Democracy as the best form of government must be understood as an absolute, not a relative, judgment. *If* there is a moral hierarchy of good forms of government, it should be set up in absolute terms, as a series of gradations through which political history can actually advance, as better forms of government can be instituted in relation to improved conditions. *If* Democracy is the best form of government absolutely, its absolute supremacy should not be thought inconsistent with the obvious historic facts that, in many known situations where inferior conditions prevail, inferior forms of government are best relatively. The worst misunderstanding of what we are trying to say would be to suppose our judgment of Democracy to be that it is always and everywhere the best form of government for a people to adopt. Nothing could be further from the truth. Although we think it is the form of government at which all political action should progressively aim, we realize that the ideal—and Democ-

[20] So far as we know only two writers throughout the history of political theory have fully appreciated the significance of this distinction—Aristotle, in the *Politics*, and John Stuart Mill in the *Essay on Representative Government*. And only Mill had a sufficiently developed sense of political history, and of the conditions of political progress, to use the distinction in explaining the dynamics of political change. Vd. *op. cit.*, Ch. II-IV.

racy is a practicable, not a utopian, ideal—cannot always be put immediately into practice; in fact, it should be approached through stages of improvement that are at every point adapted to the existing conditions, conditions which limit the degree to which the ideal can be realized. Far from supposing that Democracy is the best form of government relative to every sort of historic situation, we seriously doubt whether in the world today there is any people whose physical, economic, cultural and moral attainments are yet adequate for the full practice of Democracy, though perhaps such conditions are just now beginning to appear. The first inception of the Democratic form occurred during the last hundred years; it could scarcely have happened at any earlier time in human history; and the full realization of the perfection in political life, which is possible under Democracy, will certainly take centuries, if not millenia, of patient and persistent work for improved conditions.[21]

[21] John Stuart Mill—not Rousseau, not Locke and Montesquieu, nor even Thomas Jefferson—is the first philosopher of Democracy. His *Essay on Representative Government* (1861) contains the first conception of Democracy in terms of principles of constitutionality and suffrage, and is the first argument for the conclusion that Democracy is morally the best political form. Unlike his modern predecessors, Hobbes, Spinoza, Locke, Rousseau, Montesquieu, all of whom were so predominantly concerned with questions about the origin of the state, the nature and locus of sovereignty, the relations of authority and force, that they passed over the problem about the forms of government with hasty superficiality, John Stuart Mill, in true Aristotelian fashion, devotes his major attention to this central problem. Thus, his first four chapters are entitled: "To what extent forms of government are a matter of choice"; "The criterion of a good form of government"; "That the ideally best form of government is representative government"; and "Under what social conditions representative government is inapplicable."

John Stuart Mill is not only Democracy's first philosopher, but he is also its great prophet. He did not suppose that this ideal polity could be fully realized without drastic changes in society, morally and culturally, as well as economically; and he foresaw, with amazing prescience, the course future developments would have to take, even the need for overcoming national barriers and for the formation of federations. Always sensitive to the importance of the Aristotelian distinction between the best absolutely and the best relatively, Mill is at once a realist, recognizing the justice of inferior forms of government relative to inferior conditions, and an idealist, defining the goal of political progress. He is an optimist without being utopian, though, perhaps, by comparison with Jacques Maritain, he under-

(2) *The meaning of "ideal."* The best form of government *absolutely* is the ultimate ideal toward which all progress in political affairs must tend. Forms of government which are good, though less than best absolutely, are also ideal in the sense that they may be best relative to particular circumstances. In both these uses, the word "ideal" signifies a good which can serve as the goal of political activity. In neither case is the ideal utopian; it is never the Platonic absolute good—the city in the skies—but the Aristotelian practicable good, whether the best that is eventually attainable or the best that is here and now possible. The significance of the foregoing points will, of course, be different according as the discrimination of grades of goodness is moral or prudential, but they will apply in both cases because we can consider ideal means as well as ideal ends.

There is one further meaning to the word "ideal" which is of the utmost importance for the clarity of theoretical discussions about political problems. Every *form* of government, whether good or bad, whether graded as a means or as an end, is an ideal precisely because it is a form, and hence a communicable universal, rather than a singular existential instance. Thus, let us suppose that "fascism" and "democracy" name the only two forms of government, one bad, the other good; let us suppose, furthermore, that the German Reich and the United States are existential instances of these two forms, respectively. But they are not the only existential embodiments of these political forms. The form is ideal in the sense that it is capable of an indefinite number of embodiments by actually existing governments, no one of which will perfectly exemplify the defined type. In this sense, the word "ideal" is opposed to the real or existential; it is the universal as opposed to the particular; a formal essence, which can be conceived and defined, as opposed to the materialization of it by particular instances

estimates the time which will be required for the attainment of the goal. It is worth comparing Mill and Maritain, both of whom can be regarded as prophets of the Democratic ideal, in order to see the radical difference between the optimism of a naturalist and the hope of a Christian. Vd. *Scholasticism and Politics,* New York, 1940: esp. Ch. III, VIII, and IX.

which can and do exist. In this sense, the ideal connotes no moral value, and this sense must, therefore, be sharply distinguished from that other set of senses in which the ideal is the good, whether practicable or utopian, whether the best absolutely or only relatively.[22]

Unless the moral sense of " ideal " (in which it is opposed to the bad or undesirable) is carefully distinguished from, shall we say, the metaphysical sense (in which it is opposed to the particular or existential), political discussion cannot take account of the fact that bad forms are not perfectly realized in existence, any more than good forms are.[23] Actually existing governments are never perfectly good or bad, for no singular materialization can ever be a perfect realization of a formal (and in this sense, ideal) type. This rule holds whether there is only one good and one bad form, or many of each, graded morally or graded prudentially. Failure to keep this point in mind leads to a confusion of theoretical and casuistical problems. In political *theory*, our task is not to judge the goodness or badness of any historic or existing political organization. We are simply trying to define the forms, the ideal types of good and bad, and we may further try to convert our classification into one or another sort or ordering or gradation. Only if we are able to accomplish this task with scientific precision on the theoretic level, can we

[22] In order to distinguish ethical theory from casuistry, we must recognize that the virtues and vices we define and classify are formal types, not the approximations thereto which consist of existing habits in existing individuals. In ethical theory, we define courage and cowardice in order to be able to make the casuistical judgments that this man is courageous or that man is cowardly. The courage which we define is a communicable form, capable of being commonly possessed in varying degrees by many individual men. Hence courage and cowardice as defined are, metaphysically speaking, ideal, in contrast to the real, the existing, habits of particular men. But, morally speaking, courage is ideal, in the sense of desirable, whereas cowardice is not ideal, but opposed to it. Political theory must be similarly distinguished from political casuistry. In political theory, we undertake to define and classify political forms, and whether good or bad these forms are, metaphysically speaking, ideal in contrast to their approximate embodiments in actually existing communities. Only the good forms are ideal in the moral sense.

[23] We must remember that, on the theoretical level of discussion, what is morally ideal is always also metaphysically ideal, whereas the converse is not true: what is metaphysically ideal may be either a good or a bad form.

hope to make intelligent casuistical judgments, in which we apply the theoretical principles to particular cases, whether for the sake of identifying the approximate type of a particular existing government, or for the sake of criticizing such historic embodiments, or for the sake of devising particular and immediate means whereby to achieve a fuller realization of a certain ideal type.

This distinction between the ideal and the real (political forms and political existences) has a further bearing on our discussion. The forms of government are integral and discrete. Each is definable in terms of criteria which separate it by an indivisible difference from inferior or superior forms; and in this respect, the moral hierarchy of good forms of government resembles the natural hierarchy of substantial species.[24] Negatively, this means that one form of government cannot be regarded as a degree of another form, differing from that other only by more or less of the same essential criteria. But the particular historic embodiments of each of these forms may differ from one another by degree, for each actually existing instance of a given form of government may more or less fully realize the essential perfection of that form. These differences in degree may be due to the employment of more or less efficient means (i. e., the form of government must be existentially embodied through one or another mode of administration and organization, and one mode may be more successful than another relative to these patricular conditions), but whatever the causes, it remains true that if one surveys a large number of historic and existing instances of the several forms of government, and tries to order them according to standards of better and worse, they will present a picture of continuous variation from one extreme to another. The best embodiment of a lower form will appear to be contiguous with the least perfect embodiment of a higher form. The fact that the accidental types (the various actual embodiments of distinct forms) appear to vary

[24] For the details of this resemblance, vd. "The Demonstration of Democracy," *loc. cit.*, note 37a. Cf. M. J. Adler, "Solution of the Problem of Species," in THE THOMIST, III 2, 279-379.

continuously and by degree is not inconsistent with the fact that the forms themselves are hierarchically ordered, so long as we remember that the continuity is *only apparent*, for it remains the case that the best and the worst embodiments of a given form are instances of that form and, therefore, are separated by an integral difference from all the embodiments of a superior or inferior form.

This last point brings us finally to the recognition of two distinct motions in political dynamics—gradual as opposed to revolutionary change. A political revolution occurs in the historic order when a people changes from one form of government to another. In contrast, a people may for centuries achieve only gradual improvement, as opposed to revolutionary *transformation*, by alterations in the accidental modes by which the same political form is embodied.[25] Political progress toward the ideal may, therefore, be accomplished in two ways, and will, in fact, always proceed through gradual stages before the conditions have matured for a revolutionary change.[26]

In the light of this clarification of " ideal," we must interpret our conception of Democracy as, morally, the best form of government to mean, first, that Democracy is supreme in the hierarchy of political forms; and second, that, as a form, it is metaphysically an ideal which can be more or less perfectly embodied. By the first count, Democracy is the ideal goal of all the revolutionary motions in political history. By the second count, the more and more complete achievement of the essential

[25] Political revolutions, or transformations, are analogous to substantial changes in the natural order; gradual improvements in the modes of embodiments are analogous to accidental changes.

[26] What is here being said about progressive motions applies equally to the retrogressive motions of decay and corruption. They, too, may be either gradual or revolutionary; and gradual decline in the accidental modes of embodiment usually precedes and occasions the radical transformation by which a people passes from a higher to a lower form of government. What we have here called " revolutionary change " consists in the motions of generation or corruption—transitions from one form of government to another, from worse to better, or from better to worse; what we have called " gradual change " consists in those motions of alteration, by which are effected advances or recessions in the degree to which a given form is actually realized.

perfection of Democracy is the goal of all the gradual motions through which a people must pass, once Democracy is partially and incompletely established. In one sense, therefore, the Democratic form is the objective of all political activity working for progress; but, in another sense, the fullest realization of what is possible under that form is the ultimate objective of such activity.

(3) *The meanings of "government" and "state."* Sometimes the two words are employed interchangeably, as when men speak indifferently about "forms of government" or "kinds of states." Sometimes "government" is used to signify the institutions and offices of rulership, as well as to refer to the personnel occupying these offices and exercising their authority or power. In this latter usage, there can be changes in *mode* of "government" without changes in the *form* of "government" or in the kind of "state."[27] Our solution of these ambiguities turns, first, upon our distinction of the forms of government from the various accidental modes of each of these forms; and second, upon our insight that the forms of government are strictly correlative with the kinds of states. There will be, in short, as many essentially distinct kinds of states as there are different forms of government; and of any given kind of state, there will be many accidental variants, correlative with the modalities of the form of government which defines that kind of state. But, although there is a correlation between forms of government and essentially distinct kinds of states, the words "state" and "government" cannot be used interchangeably. Let us explain.

The four words "culture," "society," "state," and "govern-

[27] Careless usage of these two words has grievous consequences. Unfortunately it is not merely popular discourse which fails to distinguish whether the two words are being used synonymously or with a difference of meaning. The greatest political writers are guilty of the same carelessness, which pervades the whole discussion of political classifications. Thus, when Aristotle distinguishes between royal and constitutional regimes, on the one hand, and between monarchy, aristocracy, and polity, on the other, he does not use the words "government" and "state" in a way that discriminates between the two distinct classifications.

ment" express different considerations of the phenomena of human association—not only different in the aspect apprehended, but also in the way the aspects are ordered to one another. Thus, a culture is constituted by the moral, intellectual, and spiritual attainments of men living together in society; a culture cannot be identified with the cultivation of isolated individuals; it represents rather that cultivation of human powers which a society tries to sustain. Individual men are cultivated or, it might be even more appropriate to say, *civilized* by the society in which they live. Its type or degree of civilization—measured by its cultural characteristics and level—is one of the properties of a *civil* society. But not all societies are *civil*; some are domestic communities; some are associations which aim at the good of men in some special respect, rather than simply, such as economic corporations or recreational clubs. In the classification of associations, as natural or artificial according as they aim at the good of man simply or in a certain respect, and of natural communities as imperfect or perfect according as they accomplish the good of man (conceived essentially) in part or whole, the state is said to be a natural, perfect community.[28] But even so, the state, though co-

[28] Cf. p. 417, *supra*. We must observe a twofold significance in the word "natural" as applied to societies. On the one hand, the natural is opposed to the supernatural; thus, the State is the perfect, natural community, and the Church is the perfect, supernatural community. Here the opposition turns on the type of efficient cause operating to form the community: States are humanly formed, whereas the Church is divinely instituted. On the other hand, the natural is opposed to the artificial, in the sense already indicated; thus, the State is a natural community, and an economic corporation is an artificial one. We realize that the word "artificial" has unfortunate connotations in this connection, but there does not seem to be any other to signify the kind of associations which have as their end, not the good of man *simpliciter*, but his good *secundum quid*. This second opposition turns on the final, rather than the efficient, cause of association. The distinction between the State and an economic corporation is like the distinction between the secondary, or intellectual virtues, especially the arts, and the primary, or moral, virtues. Nor can this distinction be made by saying that the State is a perfect community, whereas an economic corporation is imperfect, in the sense already indicated; for the family is an imperfect community which is also natural. It is true, of course, that what we have called "artificial associations," i. e., associations for artistic rather than moral or political ends, are always also imperfect, because none of these provides the complete conditions of a good human life.

terminous with a society which is natural and perfect in the sense defined, is not always identified with it in the totality of its aspects. The state is sometimes regarded as a civil society in its political aspects, but the political aspect, though basic to the civilizing influences of a society, is merely part of the culture or civilization which a civil society sustains and whereby it cultivates its members. Hence, the state is one of many kinds of association (the civil as opposed to the domestic, productive, recreational, etc.), and the political aspect is one of the many cultural dimensions of a civil society. This suggests a broader and narrower use of the word " state."

Now civil government can be considered in two ways: either as the organization of men according to the various civil relationships of ruling and being ruled; or as the organization of men who have civil authority and wield power over others in the same society. In the first case, government is identical with the state in its political aspect, for in its political aspect, a state or civil society consists of the multitude of men as politically organized and through such organization related as rulers and ruled. In the second case, the government is obviously only a part of the state, for it is not coextensive in its membership with the membership of the society which is organized under some form of civil government.

We shall never use the word " government " to designate the rulers, whether they be constitutional or absolute, whether they be one or many. We shall use the word to signify more than is intended by the word " governors." We conceive government as the whole political organization of a multitude, and therefore as including the governed as well as their governors. Thus conceived, the political aspect of a civil society is identical with its government. But since the nature of a civil society is not exhausted by its political aspect, the word " state " (here synonymous with the phrase " civil society ") can be used to signify something more than a government. Two states which are the same in political aspect (so far as form of government is concerned) may differ in their type of economic organization, in their cultural attainments, in their spiritual character.

According to our rules of usage, it makes no difference whether we say that Democracy is the best form of government or that Democracy is the best kind of state. The problem of the moral classification of forms of government (both generic and specific) is the problem of the moral classification of kinds of states. And even with regard to the subordinate modes of governmental machinery (the arrangement of ruling offices and their manner of administration), it makes no difference whether we view these as accidental modes of the several forms of government, or as accidental types of the several, essentially distinct, kinds of states, so long as our view includes the condition and status of the ruled as well as the operations and positions of their rulers. It is only when we come to discuss the means and ends of political activity that we must be careful to observe a difference in the use of these two words. The well-being of the state is more than its political goodness, the goodness of its form and mode of government, precisely because the state is more than the multitude as politically organized, even though their political organization is the minimum condition of their being regarded as a civil society. This point becomes extremely important in our subsequent discussion of the political common good in relation to the human common good, and especially with regard to the state both as a means and as an end. A form of government (or, what is the same, a kind of state, considered in its political aspect) may be the end or objective of political activity, and the good which is thus aimed at must be conceived as a common good; but the form of government may also be viewed as a means to the well-being of the state when that is considered in its larger sense as connoting more than the political organization of the multitude. Hence, the common good which is the state, in this larger sense, is not identical with the common good in its narrower political signification—and neither is identical with that ultimate common good, which is the good of individual men, and distinct from the well-being of the community of which they are members. These distinctions are indispensable if we are to give any clear meaning to such statements as "the common good is the end of the state."

We need not go further here with these verbal clarifications. It will be more profitable to go further when, at later stages of the analysis, the argument itself requires us to increase the precision of our vocabulary. We are somewhat embarrassed by the posture of semanticism which anyone who makes such a fuss about vocabulary and ambiguity appears to assume. But, unlike the logical positivist, we do not indulge in semantic criticism for the sake of discarding political philosophy as verbiage and nonsense, but rather in order to discover theoretical truths which have been obscured by centuries of equivocation. If there is any merit at all to precision in the use of words, in sharply distinguishing univocal from analogical and equivocal uses—and we insist that Aristotelians and Thomists need not bow to contemporary exponents of logistic method for discovering or approving such techniques—then certainly political discourse can profit by semantic therapy of the most drastic sort. In fact, it would be difficult to find any other department of philosophy, theoretical or practical, which is so befuddled by shoddy speech. Unless linguistic renovations can be effectively established, it is impossible to defend against positivists the right of political philosophy to regard itself as a *normative science*; it is impossible to treat much of the controversy between opposing political theorists as if genuine communication existed, as if their quarrels were about thoughts, not words.[29] Unfortunately, criticism is always easier than

[29] As already pointed out, the greatest confusions and ambiguities arise from the multiple usage of such words as "monarchy," "aristocracy," "polity," "oligarchy," and "democracy." Their signification is sometimes purely numerical (the one, the few, and the many); sometimes it derives from the character of those to whom political privileges are awarded (the poor, the rich, the virtuous); sometimes from the value, or aspect of the common good, which is predominantly emphasized (unity, virtue, freedom); sometimes these principles are used independently of one another, sometimes they are combined in various ways, and it is seldom possible to tell which principles or combination of principles are being invoked when a writer uses these words of classification. To complete the picture of multiple equivocations, there are the various so-called mixed regimes, which are as ambiguous as the so-called pure types, because the principle of the mixture may be any one or more of those already mentioned; thus, Aristotle's discussion of mixed regimes is different from Cicero's, and his from St. Thomas'; nor it is even clear that modern commentators on St. Thomas' theory of mixed regimes are using

reform; and in matters of language especially, it is easier to point out ambiguities than to institute a vocabulary which shall be at once purified and also generally intelligible. But anyone who is unwilling to take such pains—whether he be writer or reader—might as well give up trying to clarify and solve the central problem in political theory. Such semantic measures can be taken without falling into the errors of positivism, and without robbing philosophical speech of its proper flexibility, its modes of metaphor, its richness of analogy. One should be able to achieve a precision proportionate to the needs of a given subject-matter, without exposing it to the dangers of *rigor mortis* at the hands of logistical fanaticism.[30]

his words in his sense. The muddle is still further increased by the use of qualifying adjectives, such as "absolute" or "constitutional" and "limited" in the case of "monarchy," "direct" and "representative" in the case of "democracy," for it is never clear whether the qualification causes an essential or only an accidental change in the form being classified, and if essential, whether the normative difference is in the sphere of ends or means—is moral or prudential. In fact, the only fairly uniform feature in this scheme of classification—the vocabulary of which has been so ambiguously used by writers during the last 2500 years—is the division between all good and all bad forms of government, and even here the principle of the generic distinction has not been separated from one of the criteria of political justice which enters into the definition of the specific forms. The traditional phrase—"rule for the common good"—is itself compact of ambiguities.

It would take pages to document the charges here made against political writers, ancient, mediaeval and modern—applying equally to the most eminent analysts as well as to followers and copyists. But anyone who has read the great works of political theory must have observed some, if not all, of the ambiguities we have mentioned; anyone can discover them if he will place in juxtaposition the classification of political forms made by different writers, or even the accounts given by the same writer in different parts of his own work. If we are right that the normative classification of political forms is *the* central problem in political theory, then political philosophy is hollow at the center. The confusions and ambiguities merely confirm the suspicion—independently generated by a study of traditional doctrine—that this problem has never been solved.

[30] We have in mind the cautionary remark of M. Maritain. In his Foreword to *Problems for Thomists: The Problem of Species*, he wrote: "Although carefully avoiding the errors of logistic, Mortimer Adler desires to give the philosophical vocabulary a fixity and a strict clarity of outline which will be as close as possible to that of the mathematical vocabulary. I do not think, for my part, that these requirements should be pushed too far." We agree with M. Maritain's insistence on prudence; one would be pushing the desire for precision *too far* if one pushed it

6. Finally, it is necessary to say a word about the polemical situation itself, and the attitude we shall assume in undertaking this demonstration of Democracy against objections of various sorts. We shall not be concerned at all with the position of those who, from a positivist's skepticism about all moral matters, deny that demonstration is possible in the field of political theory.[31] For them, all political judgments are expressions of opinion, rationalizations of prejudice, propaganda for emotionally preferred courses of action. The highest praise they can give Democracy is to promote it as an object of secular "faith," thus placing it in brutal competition with other political religions. They not only eschew all normative principles in politics, but also dishonor Democracy by refusing to submit its merits to the judgment of reason. We prefer to restrict our efforts to meeting the objections of those who acknowledge political philosophy as a realm of practical truth and who agree that, while it is essentially practical, in that its judgments always aim to direct action, it nevertheless has a theoretical level on which demonstration is possible.[32] Because it is prac-

beyond the needs of the matter being discussed; but one would, it seems to us, be equally imprudent if one did not push it *far enough*. We cannot agree with M. Maritain, when he says that "in philosophy as in poetry verbal equivocations occasionally guarantee the most fertile and truest intuitions" (*op. cit.*, p. ix). Rather it would seem that verbal equivocations function philosophically only as an occasion for clarifications which increase the precision of analysis.

[31] There are many varieties of *realpolitik*, as there are many varieties of positivism today, but they all agree in admitting a *science* of politics only in so far as it is purely descriptive. If they are willing to consider practical recommendations at all, it is only with respect to the relative efficiency of diverse means for achieving political success. But they will not consider the problem of ends. They deny, in short, any normative science of politics or what we should prefer to call political philosophy—a practical wisdom about the ends of political action.

[32] We reject the view of ethics and politics taken by Prof. R. P. McKeon which, it seems to us, misinterprets the meaning of the Aristotelian dictum that in practical sciences certitude and demonstration is impossible. The dictum holds only for the practically-practical and the prudential levels of practical knowledge, and not for the speculatively-practical level where there is a genuine wisdom—a knowledge of universal and certain principles, self-evident or demonstrable. Vd. McKeon, "Aristotle's Conception of Moral and Political Philosophy," in *Ethics*, LI, 3, 253-290; cf. also his Introduction to *The Basic Works of Aristotle* (New York: 1941), pp. xxvi-xxviii.

tical science, ultimately deriving from universal principles (comprising its theoretical level, which directs action only from afar) those singular judgments immediately proximate to action, the mode of demonstration is not the same as proof in the domains of purely speculative knowledge. Theoretic and practical logic agree, however, in one basic requirement for all demonstration: the ultimate grounds of any proof must be self-evident principles. But the propositions *per se nota* of political reasoning must include some practical judgments of the same formal type as the first principles of all practical reasoning—the axiomatic prescriptions of the natural law.[33] And, furthermore, even on what Maritian calls the speculatively-practical level of moral philosophy (which includes as much of political theory as there is wisdom about political matters), the mode of argument must conform to the requirements of practical, as opposed to theoretic, reasoning—requirements which are different because of the profound difference between the nature of practical and theoretic truth.[34]

Nor shall we concern ourselves with those whose arguments consist entirely of appeals, covert or open, to the authority of Aristotle and St. Thomas as bearing witness to the manifest errors of the theory we are proposing and will defend. If the theory is specious, for whatever cause, then it must give way

[33] Not all of the indemonstrable premises of political reasoning are practical (i. e., practical in mode of conceptualization, type of judgment, and criteria of truth), for some, those constituting the minor premises of the practical syllogism, must be theoretic judgments. In the practical syllogism at the prudential level the minor premises consist of perceptual knowledge of matters of fact (observation about the singular circumstances of an action to be done); at the speculatively-practical level, where we deal only with universals, the theoretical content of the minor premises is furnished by the speculative sciences (metaphysics, the philosophy of nature, the philosophy of man). The conclusions of political theory must, therefore, rest on self-evident practical principles and on speculative truths, either self-evident or demonstrated.

[34] Only if all these points about the nature of practical knowledge are understood, will our effort to demonstrate the thesis about Democracy escape the charge that it embodies one of the most unhappy of modern blunders—the geometrizing of ethics and politics—the mistake which combines a right desire for demonstrative knowledge about things good and bad, with the misapplication of a method whose inappropriate rigor brought about the most dismal frustrations.

before, not the weight of contrary authority, but the authority of reasons which *presume* to correct its errors. Now, those who cite contrary *dicta* from ancient and mediaeval texts, or point to the absence of supporting pronouncements, either know such reasons or they do not. If so, they will find their reasons among the critical objections already enumerated, or should this list be incomplete, they will be able to supply us with further points of criticism with which we are unacquainted. If not, then, so far as strictly logical relevance is concerned, their comments have no weight.

What lacks logical bearing may have, however, another kind of relevance. It may have bearing on the history of political theory, for if the present theory is true, then there is inadequacy and error in the great historic doctrines, and it becomes important, as a work of historical research, to locate and explain these failures. The relation between the history of political thought and the history of political institutions is certainly worth investigating in connection with the problem of Democracy; no less worthy would be a careful commentary on the leading texts in political theory in relation to that problem. But our main interest is in the theory of Democracy itself—to test whether it is sound or unsound. Since we do not believe that significant discoveries can be made in any field of thought apart from an abiding tradition of well-established truths, we shall not ignore historical and textual considerations. In rendering objections intelligible, as well as in answering them adequately, a due regard for the authority of Aristotle and St. Thomas, a docile study of their works, must prevail. But we wish, nevertheless, to repeat that we are undertaking a philosophical, not a scholarly, work. The argument's the thing. It should be examined in its own terms first; thereafter, and only then, should the discussion be amplified to include historical considerations. Even then, however, they have but a tangential bearing on the truth or falsity of a theoretic position. Here, as always, it is unfortunate if the reader confuse the intention of philosophy with that of scholarship. A detailed commentary on the political writings of Aristotle and St. Thomas, in the light

of the theoretic points raised in this discussion, should be undertaken as a distinct work.

We hope that we do not seem to overestimate the importance of the theoretic issues involved in an attempt to demonstrate the perfection of Democracy. Though no one alive today is likely to approach with indifference the questions of truth and falsity about the relation of Democracy to other forms of government, many seem to think that these problems are solved more efficiently by demolition than by demonstration. And others are content to accept—or to reject—the conclusion without sufficient attention to all that is presupposed. But no conclusion, however fraught with practical consequences, is as important *theoretically* as the grounds which support it. Though the conclusion itself hovers, in the days of our years, like a brooding omnipresence over battlefield and council chamber, the issues concerning its foundation are of larger, and more timeless, significance.

WALTER FARRELL, O.P.
Dominican House of Studies, Washington, D. C.

MORTIMER J. ADLER
University of Chicago, Chicago, Illinois

MEDITATION AND THE SEARCH FOR GOD

LIKE a neglected attic full of half-forgotten treasures, our minds are stored with many familiar, but scarcely realized truths. They lie scattered about, a burden on our conscience, whispering reproaches at unexpected moments. They have not been laid aside because we are loathe to admit their uselessness and throw them out, but because we are too preoccupied with the novelties of the moment to pay them any attention. We plan to take a day off sometime and put the storeroom in order. Some things we shall discard; others we shall bring downstairs again and put to active use. Yet for one reason or another we never have a day free, and so the cluttered contents of our minds remain to haunt us. Now and again unexpected circumstances force us to hunt out something we need at the moment; the difficulty of finding it sharpens our resolve—also for the moment.

One such truth, too often overlooked in the rush of activity, is the pervading importance of God in human life. The fact of God's existence is the background of western civilization and the heart of the Christian religion. The obligation of men to search for God and the assurance of the possibility of finding Him are the two most impressive realities of human living. Two of the most critical questions a man can ask are, Who made me? Why was I made? The two most significant answers are, God made me—to know and love Him, to serve Him here and to be happy with Him hereafter. These are the only answers that make sense; with them in mind all others sound hollow. Wealth or poverty, fame or obscurity, power or weakness, health or sickness, pleasure or pain, all these become accidental manifestations of the fundamental reality of a human life turned God-wards; they are meaningful only as helps or hindrances in the search for God.

If these be the true answers (and we must assume that they are in this paper) we must then admit that the attic or storeroom is no place for them; they are not heirlooms to be displayed only when we expect a visit from our maiden aunt. Without them our house is only a front, less real than a movie-set. A polite acceptation of these truths or a reluctant admission of them to our living-rooms is not sufficient; indeed, it is an insult, for such truths as these cannot be merely tolerated; they are imperious, demanding, leaving us little time to pay attention to others. If then we have hidden them in our attic, or grudgingly given them a corner of our living-room, we have as yet not recognized their import.

I

A man searching for God—what does it mean? Does it make any more sense than the picture of a man looking for the needle in the hay-stack, or that of a child grasping for the mercury from a broken thermometer? God is pure spirit, infinitely transcendent, supernaturally perfect. Can the bungling efforts of a creature ever get on the track of God, much less actually find Him? Where should he look? How can he tell that he is on the right track? How will he know that he has found God? What does it mean to find God? This is the key question; when we know the answer to it, we shall know how to look for God.

It is true that God is a perfect being infinitely superior to any of His creatures. He is the only one Who is completely self-sufficient, perfectly happy in the possession of His own goodness; in fact, He can never be unhappy, for He can never lose possession of Himself. If He willed, He could keep that goodness to Himself, or He can give a share of it to others besides Himself; He can even give Himself, His undivided goodness to others. This He has promised to men, that He will give them, not His gifts alone, however great, but Himself. On the assurance of God then we believe that we can come into the possession of God. If we can possess Him we can find Him.

God's perfect possession of Himself is the reason for His unfathomable happiness. Now if God had no intellect and will, if He were not a spiritual being He could not possess Himself. In other words, the only way He can enjoy even His own infinite goodness is by knowing and loving Himself. In fact, that is the only way any spiritual being can be possessed, by knowledge and love. If others can also possess God, they must be creatures of intellect and will, men or angels, for to possess God is to know and love Him, which is also to find Him. The search for God must then be of the same order as the finding and possessing, a matter of knowing and loving God.

In one sense, we find God only in heaven beyond the gates of death. There, when our intellects are immediately united to the divine essence and our wills are inflammed by love, we come into our heritage, the complete and perfect possession of God. Then our quest is finally halted and we rest at the end of the road. The dust and the stains and the bruises of the journey are washed away, the intellect is charged with the bright light of glory, and we look on the face of God. No one need be at our elbow to whisper the truth that we now have found God; we see Him, and that is enough. In another sense (and this is the sense we are interested in here) we find God and possess Him almost as soon as we start to search for Him. If to search for God is to seek knowledge and love of Him, then each step on the way is a new discovery of God, a new insight into the treasures of His being, a new bond uniting us to Him in love. It is the nature of this search and this finding that we wish to examine here. According to Christian tradition the activity of man in search for God is called meditation or contemplation.[1]

When we have considered the fundamental nature of meditation, we shall discuss the following points in connection with it: the relation of the speculative and practical in meditation; the object and method of meditation; the bearing of meditation on

[1] In this paper we are not directly interested in infused contemplation, which depends on the special help of God. We are speaking only of acquired contemplation, which, as we shall see, is a normal development of the habit of meditation.

the prayer of petition, and on devotion. From these points we shall be able to conclude to the importance, the necessity, even, of meditation for a vital Catholic life.

II

A woman, keeping her eyes on two young people she has often seen together to discover whether anything serious is developing, is curious, not meditative. A research student, spending hours in his laboratory, watching his test-tubes, is searching for truth, but not meditating. An art lover, standing before a Titian or a Murillo, gazing at its thrilling beauty, satisfied with the mere looking, not desiring to possess the picture itself, is not meditating. The young man who, realizing at last that he is in love with the girl, spends all his waking hours thinking about her and all his free hours in her company, eagerly adding details to the portrait of her that he carries in his mind, is meditating, for his desire for knowledge springs from love and in turn feeds the love that prompted it.

Meditation is thinking about an object, not out of curiosity, not for the sake of the truth to be obtained, not even for the delight that comes from knowing, but for the love of the object itself; not merely for the truth and beauty of the object, but for its goodness.[2] If we could reproduce within our imagination Murillo's " Immaculate Conception," with all its details of line and coloring, we should not bother to look at the painting itself. But who would be satisfied with only an image of the one he loved? The intellect and imagination are satisfied with knowing, the will and the passions demand possession.

Love in the will is enkindled only by the goodness of an existing object. There is, however, no way for the will to become aware of existing goodness except through the intellect. In that sense, the process of love starts from the mental presentation of

[2] This does not mean that meditation excludes any of these mental states, except, of course, mere curiosity. The object of meditation is such as to arouse wonder, give delight by its beauty, enthrall by its truth; but above all, it draws us by its goodness.

an existing good; nevertheless, the impulse of the will is not toward the object as known by the mind, but as existing in reality. At the same time the will sets the intellect the task of discovering as much as possible about the object loved. The lover is, as it were, trying to bring the beloved within himself, to rebuild within his mind a mosaic of the beloved's goodness that will serve as a guide to love when the beloved is present, and as a memento when she is absent. In men this process is not an affair of intellect and will alone; these higher faculties are aided by the activity of the imagination and the emotions. In the pursuit of goodness all the energies of a man are employed, all his powers of sense and spirit are concentrated on the quarry; so the likeness of the object in the intellect is heightened by a wealth of imaginative details; the energy of the will is increased by the force of emotion.

Thus far we have been describing the activity of a man in search of created good; can the same activity be directed toward the uncreated Good? If the only relation existing between God and us were that of Creator and creature, of uncreated First Cause and created effect, our answer would be a simple affirmative. Human nature is capable of knowing and loving God as the infinitely perfect Being who has given us existence. Such knowledge and love, however, would be incapable of bringing us into intimate contact with God, who would appear to us as a rather pale abstraction; we should never know Him as He really is, we should never directly possess Him, never have an intimate share in His life. Our relation to God would be similar to that which exists between us and the head of our nation; we should know a few of the external features of His life, love Him because of His beneficence towards us, respect Him as the great ruler of the world; we should never call Him friend.

The fact is that God has not held us at a distance: indeed, He has invited us to become His friends. He has promised that the same goodness that makes Him perfectly happy will be ours to possess eternally—His divine essence. The natural powers of intellect and will are helpless here; they are incapable of even

starting the quest for intimacy with God. Is the divine invitation, then, an empty gesture? God has given man supernatural powers with which to pursue the greatest good that exists. Into the intellect God infuses the habit of faith, into the will, the habit of charity; with these two man can now start on the search for God. In the heat of the pursuit the human will is braced by a supernatural hope in ultimate success; hope is necessary to sustain the heart of man throughout the search, but the quest itself belongs to faith and charity. In faith and charity, then, we shall find the secret of the search for God. Each of these virtues has a special characteristic that unites the the soul to God. Faith begins the union, for without it charity would be totally blind; yet faith is too imperfect for the demands of love, which eventually outstrips faith and in this life is the real bond of union between the soul and God.

Faith is a supernatural virtue, infused into our intellects by God, which inclines us to give our assent to truths that we cannot understand. This is a rather bare, technical definition, but its precise terms hide a wealth of meaning. To display some of that wealth let us say that faith is the virtue that makes us hang upon the words of God, and treasure with loving reverence every syllable He utters; it is the virtue that gives us entrance unto the secrets of the heart of God Himself, that lets us see, not with our own eyes and according to our own narrow judgments, but with the eyes of God; it is, finally, the virtue that colors our whole outlook on life, our judgments, our ideals, our emotions and our sentiments.

The unifying character of faith lies in its supernatural power of penetrating through the formulas of revelation to the reality behind them.[3] When someone tells me that it is raining, I assent, not to a group of words, but to the reality of a rainy day. So too when God tells me that the historical figure we know as Christ is a God-Man, I assent through faith, not to the formula, but to the fact itself. The same statement made to

[3] Actus autem credentis non terminatur ad enuntiabile, sed ad rem (*Summa Theol.*, II-II, q. 1, ad 2, c. et ad 2um).

an unbeliever is actually meaningless; he can no more penetrate the reality expressed therein than a dog can formally understand the meaning of words addressed to him. With faith the statements of revelation become the means whereby our intellects are united to the supernatural reality of the divine life of God. This union, though vital, is very imperfect, for the media of union, the formulae of faith, hide the full reality of God; they are a veil that reveals many of the contours, but hides the complete profile of God. The purification of faith, involving the removal of many of its imperfections, is a sign of progress in the search for God. Until faith passes and the beatific vision takes its place, the union between the intellect and the divine reality will ever be imperfect. Nevertheless, here below, faith is the essential means of union with God.[4]

The imperfections of faith are a constant source of irritation to charity, which feels keenly its limitations, for love is free of any intrinsic imperfection such as we find in faith; that is why love will remain when faith passes away. Love's impulse is to the object loved as it exists in reality. The limitation of the human mind causes God to hide the splendor of His reality beneath the veils of faith; the infinite goodness of God, however, does not escape the striving of love. Love will not permit the reality of its object to remain shrouded from it; love goes out to embrace the object in all its perfection and completeness. This is why St. Thomas teaches that on earth the will is more perfect, capable of a more intimate union with God than the intellect, that in this life it is better to love God than to know Him.[5]

[4] Fides est habitus mentis quo inchoatur vita aeterna in nobis, faciens intellectum assentire non apparentibus (*Summa Theol.*, II-II, q. 4, a. 1).

[5] Operatio intellectus completur secundum quod intellectum est in intelligente; et ideo nobilitas operationis intellectualis attenditur secundum mensuram intellectus. Operatio autem voluntatis et cujuslibet virtutis appetitivae perficitur in inclinatione appetentis ad rem sicut ad terminum; et ideo dignitas operationis appetitivae attenditur secundum rem quae est objectum operationis. Ea autem quae sunt infra animam, nobiliori modo sunt in anima quam in seipsis, quia unumquodque est in aliquo per modum ejus in quo est. . . . Quae vero sunt supra animam, nobiliori modo sunt in seipsis quam sint in anima. Et ideo eorum quae sunt infra nos, nobilior est cognitio quam dilectio; . . . Sed eorum quae sunt supra nos, et praecipue Dei,

The human intellect, enlightened by faith, the will, inflamed with charity, are, then, the principles of our search for God. As revealed to us, the goodness of God attracts the will, whose impulse is the spring of all our activity. As we have said, it starts the intellect searching for a more perfect knowing of God. At first the activity of the intellect is multiple, jumping from one consideration to another. With practice, it becomes more uniform, gathering together the data of revelation in a reasonable manner and focusing them on the more important aspects of the divine life.

When this reasoning about the data of revelation is carried on with scientific accuracy and for the purpose of explaining, drawing out, or defending the revealed truths, it is called theology; the product is theological science. When this reasoning, either scientifically precise or in accordance with the natural capacities of each believer, is carried out with the purpose of inflamming the will to love of God, it is traditionally called meditation.

In a sense every act of faith and charity has a meditative character and brings us closer to God. More strictly, we employ the word to signify a concentrated effort enduring for a certain period of time. Moreover, any religious exercise, such as assisting at Mass, reciting the divine office, saying the Rosary, can be a period of meditative activity. A set period of time devoted to meditation is necessary only in a world that gives little thought to God. Such an exercise would be unintelligible to a St. Francis or a St. Dominic whose whole life was spent in meditative activity; it would have little meaning to even an ordinary Catholic of the Middle Ages. It is only when other forms of human activity tend to absorb our attention that we must put aside a definite period each day and "meditate." This however should never prevent us from realizing that the activity proper to other forms of religious exercises is also meditative.

dilectio cognitioni praefertur. Et ideo charitas est excellentior fide (*Summa Theol.*, II-II, q. 23, a. 6, ad 1um).

III

Readers of certain modern works on meditation may be wondering whether the present writer is not talking about something entirely different from what they think meditation to be. They have been told that meditation is a very practical exercise for acquiring virtue. In it we consider the virtues of Christ, His Blessed Mother, or the saints, see wherein we are lacking, and *always* end with a firm resolution to practice some virtue during the ensuing period. Yet from the description of meditation given above it would seem that it is more speculative, or contemplative, paying little attention to practical results, satisfied with an increase of the knowledge and love of God. Are these two distinct forms of mental prayer, confusedly designated by the same name, or is there only one essential form of meditation that fulfills more than one function? The latter is, I believe, the more traditional view of meditation. Certainly the older spiritual writers, including St. Theresa and St. John of the Cross, emphasize the speculative character of meditation, seeing in it the preparatory steps for contemplation.

The solution to this apparent difficulty is suggested by St. Thomas. It is his opinion that the infused virtue of faith is both speculative and practical; essentially and primarily speculative, practical by extension. "Faith," he says, "primarily and principally consists in speculation, for it clings to the first truth. Yet, since the first truth is also the ultimate end for which we act, faith is extended to action."[6] The revelations of faith are not merely for our information, but also for our reformation. Somewhat similar is the operation of charity; first and foremost it is concerned with the infinite goodness of God, the object presented to it by faith; by extension it embraces the goodness of God wherever it finds it in creatures, but especially in rational creatures.

The activity of faith and charity which we have called meditation, is principally concerned with God. However, the

[6] *Ibid.*, q. 9, a. 3.

progress of faith and love demands certain conditions that involve other activities of man. As St. Thomas points out, meditation, and especially contemplation, are impeded by the passions of man within and the tumult of affairs without.[7] These impediments are removed by the moral virtues; hence faith and charity must utilize the knowledge and love of God they already possess, and the urge they experience for a more intimate union with Him, to motivate the acquisition of the moral virtues, and to direct the action of prudence in picking the best means for this purpose. From another side charity, whether or not the soul is absorbed in contemplation will want to expend itself in doing good to others, especially through the corporal and spiritual works of mercy. Here again faith will plunge into the domain of practical activity, for, as St. Paul says, it is " faith that worketh through charity." [8]

It is clear then that meditation, though essentially speculative, must also have a practical turn. Especially in the beginning when the acquisition of the moral virtues is necessary for further progress, meditation will be very practical. Later on, when the speculative element will predominate, meditation will, from time to time, look towards the practical needs of fraternal charity. If, however, its fundamental nature is misunderstood, if the emphasis does not rest primarily on the search for God, even the practical effect of meditation will be weakened. Activity may easily become meaningless if the soul does not retire frequently and rededicate itself to the pursuit of God. Union with God is the source of all the soul's efficiency; if that is weakened, the activity may continue, but it becomes more and more naturalistic. There are souls who find food for faith and love in the objects of their activity, but they are the souls who in long hours of silence have developed the habit of meditation. They are still meditating even in the midst of an active life; their thoughts are always climbing the mountain of prayer, never really looking away from the God they love.

[7] *Ibid.*, q. 180, a. 2. [8] *Galatians*, v, 6.

IV

When a man starts out to acquire the habit of meditative prayer, there are two questions that he is likely to ask himself: What shall I meditate about? and, How shall I meditate? Since meditation is a human activity, it must have an object, and there must be a method of arriving at the goal of that activity. From what we have already said about the nature of meditation we can easily find the answer to these questions. The principal object of meditation is, quite properly, the divine Being as revealed to us by faith. Nothing is more suited to arouse our love than deep meditation on the attributes of God and on the inner life of the Trinity. In such meditation lies the foretaste of heaven; it is not only a search for God, but a kind of possession too. It brings to us the vivid realization, the experience even, of the truth that the Triune God dwells within us as in a temple.

It is, however, difficult at first to concentrate the mind on these lofty truths and to experience their reality. Where shall we find an object around which our imagination can play, which will bring home to us more strikingly the loveableness of God, and arouse our affections more easily? Jesus Christ is such an object, one that lends support to our faith and our hope and our love. In Him dwells the fulness of divinity; He is a witness and example of the infinite love and mercy of God. No matter how far we advance on the road to perfection, we shall never exhaust the riches of divine truth contained in the mysteries of the life, death, and resurrection of Our Savior. At first, we shall be intrigued by His gracious human qualities; however, we must always remember that He is not merely an historical figure whom we admire and strive to imitate; He is the Vine of which we are the branches, He is the Head of whom we are the members. Meditation on Christ must make us realize more perfectly our union with Christ through grace. Union with Him is essential if we wish to arrive at union with God in the mysteries of His inner life.

There are other objects capable of leading us to a greater

knowledge and love of God. The saints, and most of all the Virgin Mother of God, are rich in divine benefits, living examples of what God does for those that love Him. Finally, all created reality, the universe above and around us, the birds of the air and the flowers of the field, can be springboards for our consideration of God's glory. Our Lord has pointed the way for this type of meditation in the beautiful parables He taught the Jews. Those who wish to find objects for meditation should read and reread the pages of Sacred Scripture, especially the Gospels. Any other work of Meditation or spiritual reading is merely a commentary on the book given us by the Holy Ghost. One who meditates on its pages can be assured of the special inspiration of the heavenly Master.

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Much has been written about various methods of meditation. We do not wish to make comparisons, or even to suggest one method in preference to others. It is sufficiently clear that there must be a method; mere rumination, or day-dreaming, is not meditation. We have seen that meditation is a form of human activity with an end in view.

Whatever method we adopt should, however, have certain definite characteristics. It should be simple, yet sufficiently complex to include all the elements required for a good meditation. It should conform to the psychology of human beings, yet allow for individual differences. Above all, it should be as adjustable as a curtain stretcher to allow for normal progress. In fact, anyone who understands what meditation is, should have no difficulty in meditating methodically. Having chosen a subject on which to meditate, he will, if possible, present it to himself imaginatively. Moreover, his reason will seek to penetrate the meaning of the event, character, or mystery before his mind; if, at the moment, his intention is practical, he will seek to derive from the meditation motives for virtuous action. In some persons, imagination will predominate; others

will find greater ease in reasoning. Many will find it necessary to use a meditation book to arouse images and thoughts.

Even when urging imagination and reason to operate, we must always remember that their operations are merely stepping-stones to a more perfect mode of understanding, a more simplified mode of knowledge that results naturally from the habit of meditating. All the energy of the previous imaginative and rational activity is finally focussed on a few fundamental truths. It may take a long period of effort to bring our minds to a fuller realization of what really takes place at the consecration of the Mass; at last, however, all our efforts bear fruit in the simple thought of the consecration that holds our minds enthralled. A man who has been married twenty-five years need not ply his imagination or reason to find motives for loving his wife. All he has to do is to look at her or think of her, and that simple action, bearing in itself the fruit of years of looking and thinking, makes his heart burn with love again. The same process should result from continued efforts to meditate on the mysteries of faith. On the intellectual side, then, simplification is a sign of progress.

Returning again to the beginning of the process and recalling that the activity of imagination and reason has as its purpose the arousing of the emotions and the will, we can trace a like simplification of the activity of these faculties. In the course of this paper we have spoken mostly about love. It is not the only affective activity possible in meditation, though it should be the source and end of all other activity. Sorrow, joy, thanksgiving, adoration, fear, hope, humility, all these and countless others may be aroused during the course of our mental prayer. In practice, whenever an image or a thought arouses an affective reaction in us, we should allow the affection to hold sway, not passing on to another image or consideration until the affection dies down. That is why we meditate—to arouse the affections. Beginners, unless they are very sensitive, find difficulty in stimulating these responses; when they do succeed, the affection passes quickly. Here too, then, we find multiplicity

and diversity. However, as the meaning of the divine truths penetrates more deeply into the mind, the affections are more easily aroused and sustained. They tend to dominate the whole period of meditation, which then consists in a simple view of the object that kindles a powerful and steady affective response. Thus a glance at a crucifix plunges the soul into a bitter sorrow for its own sins and the sins of others. Attendance at Mass on Easter or Christmas is a single burst of joy and happiness that floods the soul and makes an hour seem like a few minutes. This state of soul is properly called, not meditation, but acquired contemplation, which is the ultimate perfection of the meditative habit and the immediate preparation for infused contemplation.[9]

V

The end of our meditation is union with God through knowledge and love, the possession and enjoyment of God as an intimate Friend. Yet, no matter how familiar we become with God, He always remains the divine Being, the source of all our perfections, the only One Who can lead us back to Him through His grace.

Since then there is ever the question of our relation with God, of a creature with the Creator, two other acts must always accompany meditation. Since God is so far beyond us, we need His assistance for every step of the road, and there is only one way to assure this assistance—to ask for it. Prayer of petition must frequently be on our lips; we must continually open up to God the desire of our hearts. We may desire, and hence ask for, whatever is legitimate; but the principal object of our petitions should always be an increase of the knowledge and love of God, which will be finally fulfilled in the beatific vision of eternal life.

[9] We are speaking here not of an emotional experience aroused by external circumstances, but of an affective experience aroused by a deeper penetration of the divine mysteries. It is during such periods as these that the Holy Ghost begins to communicate infused contemplation to the soul. *Cf.* St. John of the Cross, *Ascent of Mount Carmel,* Book, II, c. XIV.

St. Thomas expresses clearly the relation between the prayer of petition and meditation: "There are two ways for man to arrive at the knowledge of truth; first, by what he receives from another; and for what man receives from God prayer is required, according to the text of Wisdom: [10] 'I called upon God and the spirit of wisdom came upon me. . . .' Secondly, personal study must be used; and for this meditation is necessary." [11] As frequently happens, there is a mutual influence between prayer and meditation; the more perfectly we know and love God, the more perfect our petitions will be; in order to increase our knowledge and love of God, we must petition the Father for illumination and inspiration.

In the introduction we recalled that our purpose here in life is to serve God as well as to know and to love Him. The relation of friendship between God and the soul does not eliminate the relationships of Creator and creature, Master and servant. We owe to God the complete subjection of all our activities. This subjection belongs to the virtue of religion, whose principal act is devotion. "Devotion," says St. Thomas, "comes from the idea of dedication. . . . Therefore devotion is simply the promptitude of will in those things that concern the worship of God." [12]

The interior cause of devotion is according to St. Thomas, meditation or contemplation. Devotion is an act of the will dedicating man to the service of God and as such it presupposes an act of the intellect presenting the idea of service as a good. Hence meditation causes devotion because it convinces man of the necessity and fitness of such service. Moreover, meditation causes love, which is a powerful motive of service.

There is another important point that can be made here. For a Catholic, the sacraments are the ordinary channels of grace. Each sacrament of itself gives grace to the soul that is rightly disposed; for to receive any grace at all a minimum

[10] vii, 7.
[11] *Summa Theol.*, II-II, q. 180, a. 3, ad 4um.
[12] *Ibid.*, q. 82, a. 1, c.

disposition is demanded—sorrow for sin in the case of the sacraments of the dead, freedom from conscious mortal sin in the case of the sacraments of the living. However, the amount of grace depends to a great extent on the devotion of the one receiving the sacrament. While the sacrament alone is the active cause of grace, devotion is a necessary disposition for the sacrament to work effectively; the soil is not the cause of the flower's growth, yet in unfavorable soil no flower can bloom. Accordingly, meditation as the source of devotion also enters into the whole sacramental life of man.

VI

Spiritual writers and theologians will not go so far as to say that the practice of meditation is necessary for eternal salvation; nevertheless, all admit its necessity for any progress in religious life. From what we have said, this is clear enough. We need not, indeed should not, worship an "Unknown God." The materials for knowing and loving God are abundantly at our hand, waiting to be assimilated. The route from New York to San Francisco is not difficult to follow; one must, however, study the road map and follow its directions, if one is to avoid wandering. Likewise the way to God is easy, if we make the effort to study it and follow its directions. The anemic condition of much of our religious life is due principally to a lack of meditation. The spiritual life is not an unconscious or spontaneous process; it demands activity, especially the activity of faith and charity, which, as we have shown, is meditation.

If we were to read through the stacks of books being written today about the causes of the present world crisis, if we were to analyse all the factors that led to the rise of Communnaziism and the fall of the democracies, if we were to plunge into the stream of historical circumstances and dissect the actions of history's characters, we should be forced to echo the cry wrung from the lips of Jeremias at the sight of his beloved father-land in ruins: "With desolation is the land made desolate, because there is none that considereth in the heart." [18]

[18] *Jeremias*, xii, 11.

The vice of the modern world is activism. Even in the natural sphere, in economics, politics, education, sociology, there is a lack of thought, a lack of penetration below the surfaces. There is a terrible blindness falling on the leaders of the world; they do not know where they are going, for the contemplative, or speculative, element in life is scoffed at or, at least, ignored. Activism can also infect the religious life of men, even of Catholics. Without the inspiration of a deep knowledge and love of God, religious activities can easily fall to the level of a quasi-naturalism; conventionality dims the freshness of love. The relations between the soul and God become perfunctory, the ceremonies of religious worship become insipid, even meaningless.

The situation is, of course, not irremediable. As long as there is faith and hope and charity in the mind and heart of man, the road back to God is easy. It requires merely that love hearken to the call of the Lover and start out on the search for God. As long as charity is in the soul of man, he has the means of seeking for and possessing God. All the vitality of eternal life is present within him, though only in seed. " For this is eternal life, that they may know Thee, the one true God, and Jesus Christ, whom Thou hast sent."[14]

JAMES M. EGAN, O.P.

Dominican House of Studies,
Washington, D. C.

[14] *John*, xvii, 3.

THE POSITION OF MATHEMATICS IN THE HIERARCHY OF SPECULATIVE SCIENCE

I. Introduction

1. STATEMENT OF THE PROBLEM

Thomistic interest in the problem of the classification of mathematics is not prompted by any desire to minimize the legitimate progress of modern mathematics. Increasing indications of such an interest are, in great measure, due to a belated recognition of the true character of that progress. Faced with overwhelming evidences of major advances in mathematics and the mathematical sciences since the time of St. Thomas, Thomists have been literally forced to a re-examination of the hitherto unchallenged foundations of classical mathematics. It is this renewed study which has served to eliminate many of the apparent conflicts between traditional and modern concepts of the science and to focus attention on the central issue—the position of mathematics among the speculative sciences.

From the Thomistic viewpoint of a hierarchy of speculative sciences, all the progress made within the field of pure mathematics is real progress, consonant with the principles of St. Thomas. It is in the extension of mathematics to other fields that difficulties arise. The genuine utility of mathematics in interpreting the data of natural science has led to abuses. Not content with a regulative role of its own in the physico-mathematical sciences, mathematics has refused to concede a similar role to metaphysics in the philosophy of nature. It has come to deny any higher order of knowledge than its own, to consider itself self-sufficient, independent of all other sciences and capable of interpreting them fully by its superior principles. The conflict here is unequivocal. The traditional conception of a hierarchy of science, while permitting a limited regulative role to mathematics in interpreting data of the lower sciences,

demands a certain dependence of mathematics upon metaphysics, the supreme regulator of all science. Any attempt to determine the precise limits of these regulated and regulative functions of mathematics must clearly indicate the mutual relations between mathematics and the other speculative sciences; it must fix the position of mathematics in an adequate division of speculative science.

The difficulties inherent in such an endeavor are manifest. Yet, most Thomists agree that the solution to the problem is radically contained in St. Thomas' commentary, *In Librum Boetii de Trinitate*. An analysis of the pertinent sections in this commentary, supplemented by parallel passages from other works of St. Thomas, has been made the basis for a division of speculative sciences which is proposed as applicable to modern developments in mathematics and compatible with Thomistic principles. The whole project has been animated by the spirit suggested by Maritain:

> Particularly in relation to the foundations of mathematics much more preliminary work is still required, in my opinion, before Thomist philosophy can propound a systematic interpretation in which all the critical problems offered by modern developments in the mathematical sciences find a solution.[1]

Admittedly deficient in many respects, the present work is offered as a preliminary step toward the ultimate goal of systematic interpretation set by Maritain.

II. TEXTUAL KEY TO THE PROBLEM

The key texts of St. Thomas on the division of speculative science are found in the fifth and sixth questions of his opusculum, *In Librum Boetii de Trinitate*. Each question consists of four articles, distributed as follows:

Question V: The Division of Speculative Science.

Art. I: Whether speculative science is conveniently divided into natural, mathematical, and divine science.

[1] J. Maritain, *The Degrees of Knowledge* (New York: 1938), p. xiii.

Art. II: Whether natural philosophy is of those things which are in motion and matter.

Art. III: Whether mathematical consideration is without motion and matter.

Art. IV: Whether divine science is of those things which are without matter and motion.

Question VI: The Modes which he attributes to Speculative Science.

Art. I: Whether it is necessary to proceed in natural science *rationabiliter*, in mathematics *disciplinabiliter*, and in divine science *intelligibiliter*.[2]

Art. II: Whether imagination is absolutely relinquished in divine science.

Art. III: Whether our intellect can consider the divine form itself.

Art. IV: Whether this can be by way of some speculative science.

This order of procedure has its origin in the text of Boetius. In his prologue to the fifth question, St. Thomas makes it clear that the division of science under consideration is that which Boetius has placed in his text and that the modes are those which the latter attributes to speculative science. The point is not without significance. St. Thomas, commenting on the text of Boetius, reveals his own doctrine on the division of

[2] Science, in the philosophical sense of the term, is certain and evident knowledge acquired through demonstration. In relation to the teacher, this knowledge is called *doctrine*; in relation to the student, it is called *discipline*. Metaphysics, mathematics, and natural science may therefore be rightfully termed *disciplines*. But St. Thomas maintains that mathematics is most properly said to proceed *disciplinabiliter* since mathematical principles and conclusions are most readily grasped by the student and mathematical demonstrations generate the greatest certitude in the student's mind. For the rigid demonstrations of mathematics proceed solely from the standpoint of formal causality.

Similarly, evidence is presented in support of the view that the *reasoning* process is particularly characteristic of the demonstrations of natural science and that *understanding* is the characteristic feature of metaphysical demonstrations. For in natural science we reason from extrinsic causes, from one thing to another, but in metaphysics we understand the very principles of being itself and, understanding them, we are able not only to gain new knowledge but to deepen our understanding of conclusions attained in the other sciences.

speculative science but the order of presentation and method of development are necessarily conditioned by the original text. The real clue to St. Thomas' own approach to the problem seems to be given in the first article of the fifth question.

Citing the authority of Aristotle and Ptolemy in support of the threefold division into natural, mathematical, and divine science proposed by Boetius, St. Thomas proceeds immediately with a reasoned defense of that division. Two preliminary steps in his exposition offer little difficulty. Consideration of the practical sciences is first eliminated by the familiar distinction between the respective ends of the speculative and practical intellect.[3] As a basis for further distinction between the various speculative sciences, St. Thomas advances the equally familiar doctrine of the specification of habits and potencies by their objects.[4] There can be as many specifically distinct speculative sciences as there are formally different objects of the speculative intellect.

It is in the application of this principle of specification that St. Thomas indicates the direction in which his own division of speculative science would proceed. He points out a twofold aspect, of immateriality and immobility, under which all things qualify as objects of the speculative intellect (*speculabilia*). The immaterial character of the intellectual potency demands a corresponding immateriality in its object.[5] This is consonant with St. Thomas' consistent teaching that immateriality is the root of knowledge. In postulating immobility in the object of the speculative intellect, he argues from the nature of the habit of science by which the intellectual potency is perfected. Science is concerned only with necessaries and the necessary is immobile.[6] Insisting on this dual specifying element in the object

[3] Speculativus intellectus, in hoc proprie ab operativo, sive practico distinguitur, quod speculativus habet pro fine veritatem quam considerat, practicus autem veritatem consideratam ordinat in operationem tanquam in finem (*In lib. Boet. de Trin.*, q. 5, a. 1).

[4] Sciendum tamen, quod quando habitus, vel potentiae penes objecta distinguuntur, non distinguuntur penes quaslibet differentias objectorum, sed penes illas quae sunt per se objectorum in quantum sunt objecta (*ibid.*).

[5] *Summa Theol.*, I, q. 85, a. 1.

[6] Omne autem necessarium in quantum hujusmodi, est immobile: quia omne quod

of speculative science, St. Thomas holds that material things, by their very nature, are adapted to separation from matter and motion (*per se competit separatio et a materia et a motu*) and that the speculative sciences are distinguished according to the order of this remotion from matter and motion (*secundum ordinem remotionis et a materia et a motu*).

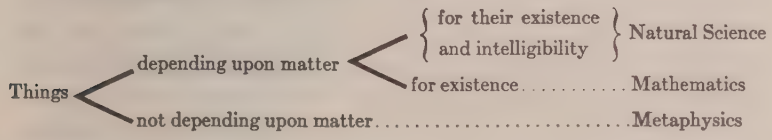
The article concludes with a description, in terms of dependence on matter, of the distinctive objects (*speculabilia*) which are embraced in the three basic genera of speculative science:

(1) Natural Science: includes those things which are utterly dependent upon matter; things which can exist only in matter; things which cannot be understood without matter. Definitions in this order necessarily include sensible matter, as for example, flesh and bones are included in the physical definition of man.

(2) Mathematics: includes those things which have a mixed or partial dependence upon matter; things which exist in matter but can be understood without matter; things which may be defined without reference to matter, as lines and numbers.

(3) Metaphysics: includes those things which are independent of matter; things which not only can be understood and defined without matter but can exist without matter.

A schematic representation reveals the adequate character of this fundamental division:



St. Thomas rejects the possibility of a fourth genus concerned with things depending upon matter for their intelligibility but

movetur in quantum hujusmodi, possibile est esse et non esse vel simpliciter, vel secundum quid (*In lib. Boet. de Trin., loc. cit.*).

not for their existence.[7] The immateriality of the intellect is incompatible with such a hypothesis.

The key to St. Thomas' own division of speculative science is found in this first article in the phrase, "the speculative sciences are distinguished according to the order of remotion from matter and motion." [8] He visualizes the object of speculative science as controlled by two factors: the natural power of the intellect dematerializing its object and the acquired habit of science perfecting this natural knowledge by immobilizing it, by passing judgment on it in terms of necessity. He seems to view the repeated acts of judgment, according to certain necessary and immobile principles, as generating a habit of science which is conditioned by those principles and which, in turn, judges its object in terms of those selfsame necessary and immobile principles. Obviously, any adequate division of speculative science purporting to be Thomistic must take full cognizance of St. Thomas' teaching regarding this remotion from matter by the intellectual potency and from motion by the habit of science.

Preliminary to such a division, two steps were deemed necessary:

(1) A brief restatement of some fundamental notions of abstraction, the doctrinal key to St. Thomas' division of speculative science;

(2) A complete recasting of the doctrine of St. Thomas' *In Librum Boetii de Trinitate*, supplemented by his other works, in an effort to determine the respective roles played by the intellect and by the habit of science in conditioning the objects of the various speculative sciences.

[7] Non est autem possibile, quod sint aliquae res quae secundum intellectum dependeant a materia, et non secundum esse, quia intellectus, quantum est de se, immaterialis est: et ideo non est quartum genus philosophiae praeter praedicta (*ibid.*).

[8] Secundum ordinem remotionis et a materia, et a motu scientiae speculativae distinguuntur (*ibid.*).

III. DOCTRINAL KEY TO THE PROBLEM

The doctrine of abstraction is commonly accepted as the key to the Thomistic division of science.[9] But apart from the innate subtlety of the doctrine, misconceptions are frequently occasioned by new terms and new divisions introduced by later writers in an effort to clarify the position of St. Thomas.[10] Certainly the sense in which he uses the term, abstraction, is not always too clear and that fact offers a real, though not insurmountable, obstacle. It is hoped that a brief summary of the basic notions of abstraction, pertinent to the problem at hand, will facilitate the understanding of applications made by St. Thomas in elaborating his doctrine on speculative science and will permit the retention of his terminology in our own analysis of that doctrine.

The human intellect understands material things by abstraction from phantasms.[11] St. Thomas bases this conclusion on the principle that the object of knowledge is proportionate to the power of knowing. In the cognitive order, man's intellect stands midway between the sensitive powers, which are acts of corporeal organs, and the angelic intellect, which is in no way connected with corporeal matter. It is not the act of an organ nor is it completely independent of matter. It is a power of the immaterial soul which is the form of the human body and the object proportionate to such a power is a form existing individually in matter but not as existing in this individual matter. Only by separating the form from the individual matter which is represented in the phantasm, is the intellect able to know what is in individual matter, though not as existing in such matter. Some such separation of the form from matter or remotion of matter from the form is necessarily entailed in the intellect's attainment of its proper object. St. Thomas terms this process, abstraction, and places it as a necessary condition of human knowledge: " we must needs say that

[9] J. T. Casey, *The Primacy of Metaphysics* (Catholic Univ.: 1936), p. 76.
[10] F. A. Blanche, " L'abstraction," *Bibliotheque Thomiste*, III (1923), 237 ff.
[11] *Summa Theol.*, I, q. 85, a. 1.

our intellect understands material things by abstracting from the phantasms." [12]

Further insight into his conception of the nature of this abstractive process is afforded when he points out, in response to an objection, that abstraction may occur in two ways:

> First, by way of composition and division; thus we may understand that one thing does not exist in another, or that it is separate therefrom. Secondly, by way of simple and absolute consideration; thus we understand one thing without considering the other. Thus for the intellect to abstract one from another things which are not really abstract one from another, does, in the first mode of abstraction, imply falsehood. But, in the second mode of abstraction, for the intellect to abstract things which are not really abstract from one another, does not involve falsehood, as clearly appears in the case of the senses. For if we understood or said that color is not in a colored body, or that it is separate from it, there would be error in this opinion or assertion. But if we consider color and its properties, without reference to the apple which is colored; or if we express in a word what we thus understand, there is no error in such an opinion or assertion, because an apple is not essential to color, and therefore color can be understood independently of the apple.[13]

St. Thomas evidently attributes these two modes of abstraction to the corresponding acts of judgment and simple apprehension. Logical truth, found only in the judgment,[14] is attained through abstraction by way of composition and division; ontological truth, characteristic of the simple apprehension,[15] is attained through abstraction by way of simple and absolute consideration. A critical analysis of the objective basis for these two modes of abstraction and for the truth attained through them is made by St. Thomas in his determination of the objects of the various speculative sciences. The details of that analysis and the conclusions drawn from it, are only intelligible in relation to this primary distinction between the modes of abstraction. Failure to grasp its full significance is fatal to any adequate

[12] *Ibid.*
[13] *Ibid.*, ad 1um.
[14] J. Gredt, *Elementa Philosophiae* (Friburg: 1937), II, 47 ff.
[15] *Ibid.*

comprehension of the respective roles St. Thomas assigns to the intellect and to the habit of science in conditioning the objects of the speculative sciences.

II. Conditioning of the Object in Speculative Science

1. The role played by the intellect

1. *Immateriality as the basis of intellectual knowledge.* In his defense of Boetius' primary division of speculative science, St. Thomas does not rest his case with a demonstration of the mere fitness or convenience of that division. He goes a step further and proposes physics, mathematics, and metaphysics as three basic genera of speculative science. Boetius made no such claim. This view of the three primary divisions of speculative science as basic genera is St. Thomas' own doctrine. Basing his conclusion on the dependence of things upon matter, he excludes all possibility of a fourth genus.[16]

It is not surprising to find St. Thomas' defense of Boetius' division thus resolved in terms of the dependence of things upon matter. Immateriality has traditionally been accepted by Thomists as the basis of all intellectual knowledge and a strict proportion between the intelligibility of a thing and its separability from matter has always been recognized.[17] The entire doctrine of St. Thomas on the speculative sciences is, in fact, an application and a refinement of his fundamental thesis that immateriality is the root of knowledge. The close kinship between his general theory of knowledge and his conception of speculative science is unmistakable. Evidence of that relationship is particularly striking in his analysis of the role played by the intellect in conditioning the objects of the various speculative sciences.

The Thomistic theory of knowledge starts with the fact that we know things. St. Thomas' explanation of that fact may be

[16] Cf. footnote 7, *supra.*

[17] Sicut res sunt separabiles a materia, sic circa intellectum sunt (*Summa Theol., loc. cit.*, sed contra).

summarily stated: our intellect, by the process of abstraction, can possess the forms of material things in an immaterial way.[18] In enumerating three types of things in terms of their separability from matter, St. Thomas is making a more precise determination of the basic fact upon which the whole theory of knowledge depends; he is distinguishing three generic classes among the things that are presented to man's intellect as objects of speculation. His explanation of the way in which the intellect attains these objects may be similarly summarized: the intellect, according to three characteristic types of abstraction, can possess the forms of material things in three degrees of immateriality. The sections which follow are devoted to the clarification and justification of this tentative summation.

2. *Immateriality in the physical order.* The objective basis for abstraction in this order is founded on the composition of the whole with its parts.[19] St. Thomas points out that the whole cannot be abstracted from its formal or specific parts but only from its material parts. The specific parts constitute the very essence of the whole and without them the whole cannot be understood. Our understanding of the nature *man*, for example, necessarily includes its specific parts, rational soul and corporeal body. But the material parts are accidental to the essence of the whole and are not necessary to our understanding of it. The fingers, hands, feet, etc., are not specific parts of man; they are material parts, parts of the individual man from which the intellect can completely abstract and consider only the universal nature, *man*.

It must not be thought that the intellect in thus abstracting from the material parts completely strips the thing of all matter and attains only the substantial form. St. Thomas explains that if this were true:

> matter would not be included in the definition of material things. Therefore it must be said otherwise, that matter is twofold, com-

[18] *Summa Theol.*, I, q. 85, a. 1.
[19] *In lib. Boet. de Trin.*, q. 5, a. 3.

mon, and signate or individual; common such as flesh and bone; and individual, as this flesh and these bones. The intellect therefore abstracts the species of a natural thing from the individual sensible matter, but not from the common sensible matter; for example, it abstracts the species of man from this flesh and these bones, which do not belong to species as such but to the individual, and need not be considered in the species: whereas the species of man cannot be abstracted by the intellect from flesh and bones.[20]

Abstraction of this type is termed by St. Thomas, abstraction of the universal from the particular.[21]

Universality is, of course, a necessary condition of all intellectual knowledge since the singular, as such, is not directly attained by the intellect.[22] But in the physical order, St. Thomas attaches a special significance to this abstraction of the universal from the particular. Admitting that the intellect always abstracts from individual sensible matter, he points out that, in the physical order, the abstractive process goes no farther in its remotion from matter.[23] Stripped solely of its individual sensible matter, the material thing attains only the lowest grade of immateriality; it is intelligible only in terms of common sensible matter. Unlike the mathematical and metaphysical orders, the physical order does not exclude common sensible matter from its consideration, for it is concerned only with qualitative being (*ens mobile*), being invested with all the diverse qualities proper to the sensible world;[24] it deals with qualitative changes which are not only manifested through the senses but are also understood only in terms of that common sensible matter in which all sensible qualities reside and have their being.

[20] *Summa Theol., loc. cit.*, ad 2um.

[21] *In lib. Boet. de Trin., loc. cit.*

[22] *Summa Theol.*, I, q. 86, a. 1.

[23] Secundum hoc est sciendum, quod materia signata est individuationis principium, a quo abstrahit omnis intellectus, secundum quod dicitur abstrahere ab hic et nunc. Intellectus autem naturalis non abstrahit a materia sensibili non signata: . . . sed a materia sensibili totaliter abstrahit intellectus mathematicus, non autem a materia intelligibili non signata (*Q. D. de Ver.*, q. 2, a. 6, ad 1um).

[24] J. Maritain, *A Preface to Metaphysics* (London: 1939), p. 81.

3. *Immateriality in the mathematical order.* Abstraction of the universal from the particular, characteristic of the physical order, has an objective basis in the composition of the whole with parts.[25] The universal can be abstracted only from the material parts of the thing and not from the specific parts which constitute its very essence. Abstraction in the physical order is thus limited to a remotion from the individual sensible matter upon which the essence of the thing does not depend. Similiarly, any abstraction based on the composition of matter and form can only be from that matter on which the form does not depend. Accidents, however, are compared to substance as form to matter and it is this composition of accident with substance which St. Thomas proposes as the objective basis for abstraction in the mathematical order.[26]

Since accidents, by their very nature, are dependent upon substance, it is impossible to abstract an accidental form from the substance in which it resides and without which it cannot be understood. But the accidents occur in substance according to a certain order, first quantity, then qualities, and finally passions and motion.[27] Quantity can therefore be understood prior to any consideration of sensible qualities. It can be understood solely in relation to the substance on which it depends.[28]

In the mathematical order, St. Thomas maintains that the intellect strips the thing of all sensible matter, the subject of sensible qualities, leaving only intelligible matter which is nothing more than substance as subject to quantity.

> Mathematical species . . . can be abstracted by the intellect from sensible matter, not only from individual but also from common matter; not from common intelligible matter, but only from indi-

[25] *In lib. Boet. de Trin., loc. cit.*

[26] *Ibid.*; cf. *In II Phys.*, lect. 3.

[27] Similiter autem inter accidentia omnia quae adveniunt substantiae, primo advenit ei quantitas, et deinde qualitates sensibiles et actiones et passiones et motus consequentes sensibiles qualitates (*In II Phys., loc. cit.*).

[28] Unde cum omnia accidentia comparentur ad substantiam sicut forma ad materiam, et cujuslibet accidentis ratio dependeat a substantia, impossibile est aliquam talem formam a substantia separari (*In lib. Boet. de Trin., loc. cit.*).

vidual (intelligible) matter. For sensible matter is corporeal matter as subject to sensible qualities . . . while intelligible matter is substance as subject to quantity. Now it is manifest that quantity is in substance before other sensible qualities are. Hence quantities, such as number, dimension, and figures, which are the terminations of quantity, can be considered apart from sensible qualities; and this is to abstract them from sensible matter; but they cannot be considered without understanding the substance which is subject to quantity; for that would be to abstract them from common intelligible matter. Yet they can be considered apart from this or that substance; for this is to abstract them from individual intelligible matter.[29]

Abstraction of form from matter is thus seen to have a special significance in the mathematical order. It is not to be understood as an abstraction of the substantial form, since the substantial form and the matter corresponding to it are mutually dependent so that one cannot be understood without the other.[30] Nor is it to be understood as abstraction of the accidental form of any sensible quality, since sensible qualities cannot be understood without quantity.[31] It is the abstraction of the accidental form of quantity from sensible matter, individual and common, and from individual intelligible matter. The mathematical order is concerned only with quantitative being (*ens quantum*), being divested of all its sensible qualities and manifesting itself to us only through its quantitative determinations.[32]

4. *Immateriality in the metaphysical order.* The intellect does not achieve complete remotion from matter in either the physical or mathematical orders. In the physical order, abstrac-

[29] *Summa Theol.*, I, q. 85, a. 1, ad 2um.

[30] Similiter autem cum dicimus formam abstrahi a materia, non intelligitur de forma substantiali: quia forma substantialis et materia sibi correspondens, dependent ad invicem, ut unum sine alio non possit intelligi, eo quod proprius actus in propria materia sit (*In lib. Boet. de Trin., loc. cit.*).

[31] Cum qualitates sensibiles non possint intelligi non praeintellecta quantitate, sicut patet in superficie et colore (*ibid.*).

[32] R. E. Brennan, "The Mansions of Thomistic Philosophy," The Thomist, I (1939), 65.

tion is limited to a partial remotion from sensible matter. The intellect strips the thing solely of its individual sensible matter, leaving untouched the common sensible matter which is the subject of qualitative determinations. In the mathematical order, remotion from sensible matter is complete. Mathematics leaves behind the world of sensible qualities and is concerned only with quantity. Yet abstraction in the mathematical order involves but a partial remotion from intelligible matter. For while mathematics abstracts from individual intelligible matter, it cannot abstract from common intelligible matter, from substance as subject to quantity. Remotion from common intelligible matter is proper to metaphysics.

The limitations placed on remotion from matter in the physical and mathematical orders have an objective basis in the two-fold composition in things: of the whole with its parts and of accidents with substance. In the physical order there can be no abstraction from the specific parts upon which the whole is dependent; in the mathematical order, there can be no abstraction from substance upon which quantity is dependent. Since the intellect can never abstract from that matter upon which the essence of the thing depends, St. Thomas insists that common sensible matter is essential to our understanding of things in the physical order and not common intelligible matter is essential in the mathematical order.[33]

In the metaphysical order, however, there is no such dependence of things upon matter. Metaphysics is concerned with those things which are completely independent of matter, things which can exist and can be understood without matter (i. e. the *maxime intelligibilia*).[34] St. Thomas points out two distinct classes of things which realize this complete independence from matter.[35] *Separata* are those things, like God and intellectual substances, whose very nature is incompatible with existence in matter. *Separabilia* are those things, like being and substance, whose nature is not incompatible with existence

[33] *In lib. Boet. de Trin.*, q. 5, a. 3.
[34] *In I Metaph.*, proem. i.
[35] *Ibid.*; cf. *in lib. Boet. de Trin.*, q. 5, a. 4.

in matter even though they can exist without matter; they are said to be separated from matter and motion, " not for this reason that it is of their very nature to be *without* matter and motion, as it is the nature of a donkey to be without reason, but for this reason that it is not of their very nature to be *in* matter." [36] *Separata* can never exist in matter; *separabilia* can exist in matter. Things in either class can exist and can be understood without matter. Yet these things, even though they are in themselves most intelligible (*maxime intelligibilia*), are made known to us only through their effects.[37]

All our knowledge begins with the senses, and the proper object of our intellect is the essence (*quidditas*) of the material thing abstracted from its phantasm.[38] Since there are no phantasms of immaterial things, our intellect can only gain an imperfect knowledge of them by stripping the phantasms of material things of all matter, even that common intelligible matter which is found in the mathematical order.[39] Thus it is only by way of privation or negation that these completely immaterial beings, transcending yet permeating the sensible world in which we are immersed, are made known to our intellects.[40] Evidence of this negative abstraction is afforded in the very terminology employed in metaphysics. Negation is either implied in the term itself, as immaterial, individual, etc., or it is expressed in its definition, as when a point is defined as " that which has no parts." [41] But this negative aspect of abstraction in the metaphysical order should not blind us to the positive

[36] Ens et substantia dicuntur esse separata a materia et motu non propter hoc, quod de ratione eorum sit esse sine materia et motu, sicut de ratione asini est sine ratione esse, sed propter hoc quia de ratione eorum non est in materia et motu esse (*In lib. Boet. de Trin.*, q. 5, a. 4, ad 5um).

[37] Per lumen naturalis rationis pervenire non possumus in ea nisi secundum quod in ea per effectus ducimur (*In lib. Boet. de Trin.*, q. 5, a. 4).

[38] *Summa Theol.*, I, q. 88, a. 3.

[39] *Ibid.*, a. 2.

[40] Omnia quae transcendunt haec sensibilia nota nobis per negationem: sicut de substantiis separatis cognoscimus, quod sunt immateriales et incorporeae, et alia huiusmodi (*In III Anima*, lect. 11).

[41] *Summa Theol.*, I, q. 8. 5, a. 8.

intuition of being which is characteristic of that order.[42] For the proper object of the intellect in the metaphysical order is not a particular kind of being, not qualitative being (*ens mobile*) or quantitative being (*ens quantum*), but being itself (*ens*), in all its transcendant perfection.[43]

5. *Summary.* St. Thomas points out a two-fold aspect, of immateriality and immobility, under which things qualify as objects or speculative science.[44] The task of dematerializing its object, rendering it intelligible, is assigned by him to the natural powers of the intellect.[45] Starting with a de facto division into three basic genera of speculative science in terms of dependence on matter, he makes an exhaustive analysis of the objective basis for abstraction in the physical, mathematical, and metaphysical orders.[46] To each order he assigns a distinctive mode of abstraction, a characteristic remotion from matter, which raises the thing understood to a certain level of intelligibility and places it in a certain grade of being.[47]

Since the raw material (*terminus a quo*) of all human knowledge is the sensible material thing, there is a tendency to unduly emphasize the actual process of dematerialization and to neglect the finished product (*terminus ad quem*), the intelligible object which the intellect attains by a simple apprehension. But it is a mistake to consider the abstractive process solely in its negative aspect, as a gradual denudation of matter from form. Maritain observes that:

[42] J. Maritain, *A Preface to Metaphysics* (London: 1939), p. 86.

[43] Nulla scientia particularis considerat ens universale inquantum hujusmodi, sed solum aliquam partem entis divisam ab aliis; circa quam speculatur per se accidens, sicut scientiae mathematicae aliquod ens speculantur, scilicet ens quantum. Scientia autem communis considerat universale ens secundum quod est ens: ergo non est eadem alicui scientiarum particularium (*In IV Metaph.*, n. 532).

[44] Sic igitur speculabilia quod est objectum speculativae scientiae, per se competit separatio et a materia, et a motu (*In lib. Boet. de Trin.*, q. 5, a. 1).

[45] Speculabilia . . . aliquid competit ex parte potentiae intellectivae, et aliquid ex parte habitus scientiae quo intellectus perficitur. Ex parte quippe intellectus competit ei quod sit immateriale. quia et ipse intellectus est immaterialis (*ibid.*).

[46] *Ibid.*

[47] Prima quidem operatio respicit ipsam naturam rei, secundum quam aliqua res intellecta aliquem gradum in entibus obtinet (*In lib. Boet. de Trin.*, q. 5, a. 3).

The essence of the process of abstraction, the eidetic visualization, is not to remove baser minerals in which the precious metal is embedded but to find the metal. The essence of metaphysical visualization is not to remove first the individualising notes, then sensible qualities and finally the quantity, it is that of which all this is but the indispensable condition, namely, the positive perception, the intuition of being as such.[48]

The positive term (*terminus ad quem*) attained by the intellect in the three degrees of immateriality attributed to the three basic genera of speculative science is not neglected by St. Thomas. The intellect, at the corresponding levels of intelligibility, understands the physical, mathematical, or metaphysical essence without reference to the thing in which it previously existed and from which it has been abstracted. Admitting a distinctive type of abstraction in each of these orders, St. Thomas nevertheless considers them all as subdivisions of abstraction by way of simple and absolute consideration.[49] This mode of abstraction, proper to the simple apprehension, is called by him *the understanding of indivisibles* (*intelligentia indivisibilium*)[50] and in enumerating its objects he indicates three indivisibles, three unities which terminate the abstractive process at the three levels of intelligibility.[51]

[48] J. Maritain, *A Preface to Metaphysics* (London: 1939), p. 87.

[49] Since things proper to the metaphysical order can exist and can be understood without matter, St. Thomas notes that they are more properly said to be 'separated' than abstracted. But the simple apprehension of *ens* in the metaphysical order, should not be confused with the separation of the principles of being preliminary to the act of judgment (cf. *In lib. Boet. de Trin., loc. cit.*). Observe that being presents two aspects. One of these is its aspect as *essence* which corresponds particularly to the first operation of the mind. . . . The other is the aspect existence, the *esse* in the strict sense. . . . It is in the second operation of the mind, in the judgment, by composition and division, that the intellect grasps being, not only from the standpoint of essence but from that of existence itself, actual or possible (J. Maritain, *op. cit.*, 19 ff.).

[50] *In lib. Boet. de Trin.*, q. 5, a. 3.

[51] De ea, quae est intelligentia indivisibilium . . . secundum quod indivisibile dicitur tripliciter, quot videlicet modis dicitur et unum, cujus ratio ex indivisione est. Dicitur enim uno modo *aliquid unum continuitate* . . . dicitur alio modo unum, quando habet *speciem unam* . . . prosequitur de indivisibili tertio modo dicto. Videtur enim unum esse quod est penitus indivisibile (*In III Anima*, lect. 11).

The unity attained by abstraction in the physical order is an indivisible according to species (*indivisibile secundum speciem*); in abstracting the universal from the particular, the intellect understands the species itself which unifies the specific parts of the whole.[52] Even though these parts may be actually divided in the thing, the intellect does not apprehend them according to this accidental division but only as they are unified in the universal by the species.[53] In the physical order, a man, a horse, or an army is understood in its universal nature as a specific unity.[54] It is in this sense of a specific unity, an *indivisibile secundum speciem*, that qualitative being (*ens mobile*) is to be understood as the proper object of the intellect in the physical order and not as a complex aggregate of being and mobility.[55]

In the mathematical order the process of dematerialization terminates at an indivisible according to quantity (*indivisibile secundum quantitatem*); the intellect understands the species of quantity (*ipsa species quantitatis*) which unifies the quantitative parts.[56] Unlike the specific parts in the physical order, these quantitative parts are actually undivided in the thing even though they are potentially divisible.[57] A triangle or a

[52] Et licet illud quod est indivisibile specie, habet aliquam divisionem in partibus, tamen illa divisa intelligit per accidens, non inquantum sunt divisibilia et ex parte ejus quod intelligitur, et ex parte temporis, sed inquantum sunt indivisibilia: quia in partibus divisis etiam in actu, est aliquid indivisibile, scilicet ipsa species quam intellectus indivisibiliter intelligit . . . in hoc modo est aliquid indivisibile, scilicet species, quae facit omnes partes totius esse unum (*ibid.*).

[53] *Ibid.*

[54] *Ibid.*

[55] A. M. Pirotta, *Summa Philosophiae* (Turin: 1936), II, 2.

[56] Potest ergo intellectus intelligere magnitudinis dupliciter. Uno modo, secundum quod est divisibilis in potentia, et sic intelligit lineam numerando partem post partem . . . alio modo secundum quod est indivisibilis in actu, et sic intelligit eam ut unum quid constans ex multis partibus, et sic intelligit eam simul. Et ideo subjungit, quod similiter tempus et longitudo dividitur vel non dividitur intelligendo (*In III Anima*, lect. 11).

[57] Unde et illud, quod est continuum, indivisibile dicitur, inquantum non est divisum actu, licet sit divisibile in potentia. Hoc est ergo quod dicit, quod cum divisibile dupliciter, scilicet actu et potentia, nihil prohibet intellectum intelligere indivisibile cum intelligit aliquid continuum, scilicet longitudinem, quae est indivisi-

circle is actually a quantitative unity and in the simple apprehension of these things, the intellect understands them as such without considering them as potentially divisible into parts. It is in this sense of a quantitative unity (an *indivisibile secundum quantitatem*) that quantitative being (*ens quantum*) is to be understood as constituting the proper object of the intellect in the mathematical order.

The complete dematerialization realized in the metaphysical order presents to the intellect objects which are absolutely indivisible (*penitus indivisibile*).[58] The transcendentals proper to metaphysics are both actually and potentially indivisible; they are known to us only by a negation of the actual division found in the physical order and the potential division found in the mathematical order. St. Thomas gives the example of a point, which is a sign of division between the parts of a line but is itself indivisible and made known to us only through the privation or negation of division.[59] These are the ultimate indivisibles, indivisibles rooted not in the unity of physical or mathematical being but in the unity of being itself. In the metaphysical order the human intellect comes in contact with the immaterial, immutable essences of all reality; in that order is achieved the loftiest and most precious intuition of our intellect, that of being as such.[60]

II. THE ROLE PLAYED BY THE HABIT OF SCIENCE

1. *Immobility as the basis of scientific knowledge.* St. Thomas postulates a twofold aspect, of immateriality and of immobility, under which things qualify as objects of speculative

bilis actu, licet sit divisibilis potentia. Et propter hoc intelligit eam cum indivisibili tempore, quia intelligit eam, ut indivisibile (*ibid.*).

[58] Videtur enim unum esse quod est penitus indivisibile, ut punctus et unitas: et de hoc ostendit nunc, quomodo intelligitur: dicens, quod punctum, quod est quoddam signum divisionis inter partes lineae, et omne quod est divisio inter partes continui, sicut instans inter partes temporis, et sic de aliis, et omne quod est sic indivisibile in potentia et actu, ut punctus, "monstratur," idest manifestatur intellectui "sicut privatio," idest per privationem continui et divisibilis (*ibid.*).

[59] *Ibid.*

[60] J. Maritain, *A Preface to Metaphysics* (London: 1939), p. 86.

science. The task of dematerializing things, rendering them intelligible, is assigned by him to the natural powers of the intellect. The habit of science, perfecting the intellect, further refines this immaterial, intelligible object by immobilizing it, by passing judgment on it in terms of its necessary and immobile principles. For all science is of necessaries and the necessary is immobile.[61]

There are, of course, sciences like physics and chemistry which treat of contingent things, things whose behavior is conditioned by the matter which they contain. Considered in themselves, these things are contingent and as such they are known directly by the senses.[62] The senses report the contingent fact; they supply the observational data which is the raw material for all science. The first refinement of that material is effected through remotion from matter by the natural abstractive power of the intellect. The thing thus stripped of its matter, the source of contingency and motion, is apprehended by the intellect as a necessary and immobile essence. It is upon these necessary and immobile essences or forms abstracted by the intellect that all science is founded; it is through them that knowledge of even contingent and material things is made possible to man's intellect.[63] All science, therefore, is said to be necessary because of its ultimate basis in the necessary essences abstracted from things, even though the things themselves may be either contingent or necessary.[64]

In its first apprehension, the intellect is concerned only with essences; it simply understands the immaterial essence in itself without any reference to its previous mode of existence. But St. Thomas points out that this essence or form may be compared to the thing from which it was abstracted.[65] By a certain

[61] Cf. *supra*, note 5.

[62] *Summa Theol.*, I, q. 86, a. 3.

[63] Per hujusmodi rationes immobiles, et sine materia particulari consideratas, habetur cognitio in scientia naturali de rebus mobilibus et materialibus (*In lib. Boet. de Trin.*, q. 5, a. 2.

[64] *Summa Theol., loc. cit.*

[65] Scientia est de aliquo dupliciter. Uno modo primo et principaliter, et sic

power of reflection, the intellect can use the abstract form as a medium of further knowledge (*ut medio sciendi*).[66] The very forms abstracted by the first act of the mind thus become the principles through which this initial knowledge of essences is perfected; through them scientific knowledge is obtained of all things, even those material and changing things which pertain to natural science.[67]

2. *Immobility in the three basic genera of science.* Corresponding to the three degrees of immateriality at which the intellect apprehends its object, Thomists have traditionally recognized three orders of knowledge, three levels of intelligibility. According to the quiddity or nature apprehended by the intellect in its first operation, the thing understood attains a certain grade in being.[68] In the physical order the nature understood is qualitative being (*ens mobile*); in the mathematical order, quantitative being (*ens quantum*); and in the metaphysical order, being itself (*ens*). These three orders, each with its proper object, are considered by St. Thomas as constituting three basic genera of speculative science, but they are not specific sciences. In its first operation, our intellect does not gain scientific knowledge; it simply apprehends the nature or essence of a thing. This initial understanding of essences is perfected by the habit of science, passing judgment on things as they actually exist.

John of St. Thomas holds that the first operation of the intellect constitutes a thing in the intelligible order (*in esse intelligibili*); it presents an immaterial essence which the intellect understands in itself without reference to the thing from which the essence has been abstracted.[69] He considers the thing

scientia est de universalibus rationibus super quas fundatur. Alio modo est de aliquibus secundario, et quasi per reflexionem quandam, et sic de rebus illis est quarum sunt illae rationes, in quantum rationes illas applicat ad res particulares, quarum sunt adminiculo inferiorum virium. Ratione enim universali utitur sciens et ut re scita, et ut medio sciendi (*In lib. Boet. de Trin.*, q. 5, a. 2, ad 4um).

[66] *Ibid.* [67] Cf. *supra*, note 62. [68] Cf. *supra*, note 46.

[69] Supponit enim D. Thomas pro fundamentali principio, quod unaquaeque res in tantum est intelligibilis, in quantum est a materia separabilis, eo quod intelligibile

thus existing—existing, that is, as an object of the intellectual potency (*in esse intelligibili*)—to be the proximate foundation of scientific knowledge. "*Esse scibile* adds over and above the *esse intelligibile* such a mode of knowing, namely, that something is known not simply but illatively, proceeding from causes or premises to conclusions." [70] Since the root of intelligibility is immateriality and we distinguish differences in intelligibility (*intelligibilitas*) according to corresponding differences in immateriality, he reasons that we should similarly distinguish differences in knowability (*scibilitas*) according to differences in immateriality, not considered absolutely in itself but as proceeding from principles to conclusions. Correlating his terminology with that of St. Thomas, his view seems to be that the degree of immateriality realized in the essence of the thing constitutes it in the intelligible order (*in esse intelligibili*) and that the corresponding degree of immobility realized in the principles of that essence constitutes the thing in the scientific order (*in esse scibili*).

This interpretation appears to be consistent with the fundamental principle of St. Thomas that the specification of the object in speculative science is controlled by two factors: immateriality, demanded by the nature of the intellect; and immobility, demanded by the habit of science. For St. Thomas maintains that "as each science considers a certain genus, it is

idem est quod spirituale et immateriale, principium autem spiritualitatis est denudatio a materia. Et sic cum materia obumbret et impediat intelligibilitatem, illuminatur et apparet objectum, secundum quod a materia secernitur diversimode. Cui fundamento addendum est, quod esse scibile addit supra esse intelligibile talem modum cognoscendi, scilicet quod aliquid intelligatur non simplici modo, sed modo illativo, ex causis seu praemissis procedendo ad conclusiones; scire enim est cognoscere causam, obquam res est, etc. *Ex quo manifeste deducitur*, quod si radix intelligibilitatis est immaterialitas, et consequenter diversae intelligibilitatis diversa immaterialitas, ita similiter radix et principium diversae scibilitatis erit diversa immaterialitatis seu abstractio, non absolute et simplici modo considerata, sed prout ex praemissis descendit ad conclusiones. Praemissae autem seu media probativa in scientiis sunt ipsa prima principia seu definitiones, per quas proprie passiones de subjecto demonstrantur (Joannis a Sancto Thoma, *Cursus Philosophicus Thomisticus*, Log. II, q. 27, a. 1).

[70] *Ibid.*

necessary that it consider the principles of that genus, since science is not perfected except through knowledge of first principles." [71] These first principles are concomitant with the different orders of knowledge; [72] they are naturally grasped in our first apprehension of the physical, mathematical, or metaphysical nature of a thing.[73] The difficulty lies in determining just what degree of immobility or necessity it to be attributed to the first principles proper to each of these three orders. For while the three degrees of immateriality are quite clearly indicated in the writings of St. Thomas, a comparable determination of the degrees of immobility is lacking. Yet sufficient basis for the following sections is afforded.

a) *Immobility in the physical order*: In this order, the object presented to the intellect (*in esse intelligibili*) is qualitative being (*ens mobile*). The immateriality achieved at this lowest level of intelligibility is not absolute; common sensible matter constitutes a specific part of every qualitative being and cannot be eliminated in our intellectual apprehension of it. The physical order is concerned with those things which can neither exist nor be understood without common sensible matter; things which contain within themselves the principles of motion.[74] It is through these principles of motion that knowledge is had in the natural sciences.[75] The intellect, however, in using these principles of motion as the means for demonstrating conclusions, is no longer considering qualitative being (*ens mobile*) as

[71] Sciendum igitur quod quaecumque scientia considerat aliquod genus subjectum, oportet quod consideret principia illius generis, cum scientia non perficiatur nisi per cognitionem principiorum primorum (*In lib. Boet. de Trin.*, q. 5, a. 4).

[72] Patet ergo quod ad diversificandum scientias sufficit diversitas principiorum, quam comitatur diversitas generis scibilis (*In Anal. Post.*, lib. 1, lect. 41).

[73] In intellectu nostro sint quaedam quae intellectus noster naturaliter cognoscit, scilicet prima principia, quamvis etiam ipsa cognitio in nobis non determinetur nisi per acceptionem a sensibus (*Q. D. de Ver.*, q. 8, a. 15).

[74] Scientia naturalis est circa ea quae habent in seipsis principium motus (*In XI Metaph.*, lect. 7).

[75] Quia tamen corpus mathematicum cognoscitur per principia quantitatis, corpus autem naturale per principia motus, non est eadem scientia geometria et naturalis (*In Anal. Post.*, lib. 1, lect. 41).

an object of the intellectual potency (*in esse intelligibili*); it is considering *ens mobile ut mobile*, as an object of the habit of science (*in esse scibili*). For natural science considers sensible substances only as they are in act and in motion.[76]

b) *Immobility in the mathematical order*: In this order, the object presented to the intellect (*in esse intelligibili*) is quantitative being (*ens quantum*).[77] The essences with which this order is concerned are abstracted from all sensible matter but not from intelligibile matter.[78] Thus the immateriality attained at the mathematical level of intelligibility transcends the consideration of sensible matter but necessarily involves the consideration of intelligibile matter without which quantitative being is unintelligible. At this level of intelligibility the intellect, by reflecting upon the essence apprehended in its first operation, is able to distinguish principles of quantity which can be used in demonstrating conclusions in the science of mathematics.[79]

If these principles of quantity are expressed in terms of immobility, the difference between them and the principles of motion proper to the physical order becomes clearly apparent. The physical order, concerned with essences which actually contain within themselves the principles of motion, considers its object *in esse scibili* as moving (*ut mobile*); the mathematical order, concerned with essences which are only potentially capable of change, considers its proper object *in esse scibili* as capable of change (*ut mutabile*). For the mathematical order considers quantitative being, *in esse intelligibili*, as a unity which is actually undivided (*indivisibilis in actu*) but the science of mathematics considers it, *in esse scibili*, as potentially divisible (*divisibilis in potentia*).[80] The child who

[76] Naturalis scientia considerat solum de substantiis sensibilibus inquantum sunt in actu et in motu (*In XII Metaph.*, lect. 2).

[77] Cf. note 42, *supra*.

[78] *In VIII Metaph.*, lect. 5.

[79] *In Anal. Post., loc. cit.*

[80] *Summa Theol.*, I, q. 85, a. 8; cf. footnotes 55 and 56, *supra*.

apprehends a line, a circle, and a triangle as distinct unities, understands them at the mathematical level. But scientific knowledge is not attained until he learns to distinguish the quantitative parts and to use them in demonstrating characteristic properties of the different mathematical figures.

c) *Immobility in the metaphysical order*: The object which the intellectual potency attains in this order is being (*ens*). Since the metaphysical order is concerned with those things which can exist and can be understood without matter, the immateriality realized at this level of intelligibility is absolute. Consequently the absolute immateriality of the object *in esse intelligibili* is paralleled by an absolute immutability in the principles which constitute the object *in esse scibili*. For the intellect, reflecting on the essence of being, can distinguish no other principles than the immutable principles of being itself. It is for this reason that the proper object of the science of metaphysics is commonly said to be being as such (*ens ut sic*) or being considered as being (*ens ut ens*). But the proper object, *in esse scibili*, of the science of metaphysics is expressed in terms of its immobility as *ens ut immutabile*. For *ens*, in the metaphysical order, is indivisible in potency and act, and cannot be considered as mobile or mutable.[81]

3. *Summary*. Immobility is posited by St. Thomas as the second requisite for an object of speculative science. The material thing must be stripped not only of matter but of motion before it is fully constituted as an object of science. The natural abstractive power of the intellect dematerializes things and permits their apprehension, *in esse intelligibili*, at three levels of intelligibility, in three degrees of immateriality. Reflecting upon the objects presented *in esse intelligibili*, the intellect can distinguish three corresponding degrees of immobility in their principles and the objects are constituted *in esse scibili* according to these degrees of immobility. But since judgment, the second act of the mind, uses these principles in

[81] *Ibid.*

establishing the conclusions of science, it is imperative that we consider the thing to which these principles are applied, the *terminus ad quem* of judgment. For the principles of the higher orders are applicable also to objects in the lower orders.[82]

The principles of being, proper to the metaphysical order, can be applied not only to things in that order but to those in the two lower orders. From his supreme vantage point at the highest level of intelligibility, the metaphysician is in a position to judge all things in terms of their immutable principles. He can consider *being* as immutable (ens ut immutabile) in the science of metaphysics; *quantitative being* as immutable (ens quantum ut immutabile) in the philosophy of mathematics; and *qualitative being* as immutable (ens mobile ut immutabile) in the philosophy of nature. At the second level of intelligibility, the mathematician is in a position to judge of things in his own and in the physical order in terms of their mutability. He can consider *quantitative being* as mutable (ens quantum ut mutabile) in the science of mathematics and *qualitative being* as mutable (ens mobile ut mutabile) in the physico-mathematical sciences. But at the lowest level of intelligibility, the principles of motion proper to the physical order can be applied only to things in that order; the consideration of qualitative being as mobile or changing (ens mobile ut mobile) is the solitary orbit of natural science.

A division of speculative science based on this two-fold specification of object in terms of immateriality and immobility can now be proposed.

III. Division of Speculative Science

The division of speculative sciences can be most graphically represented by a diagram (see p. 495). Before examining this diagram, however it will be well to recall the main points of the discussion. In our introductory section, the solution of the prob-

[82] Quanto scientia aliqua abstractiora et simpliciora considerat, tanto ejus principia sunt magis applicibilia aliis scientiis (*In lib. Boet. de Trin.*, q. 5, a. 3, ad 6um).

lems raised by modern mathematics was reduced to the determination of the position occupied by mathematics in an adequate division of speculative science, the adequacy of such a division to be judged by: (A) its compatibility with Thomistic doctrine; (B) its applicability to modern developments in mathematics. It is under these two aspects that the merits and advantages of our proposed divisions are discussed.

I. CORRELATION OF DIVISION WITH THOMISTIC DOCTRINE

In seeking a Thomistic approach to an adequate division of speculative science, St. Thomas' commentary, *In Librum Boetii de Trinitate*, was utilized as the key text and his theory of abstraction, as the key doctrine. Radical justification for the division proposed, is found in the analysis of that text and that doctrine made in the preceding section. But additional evidence of its compatibility with St. Thomas' doctrine on the speculative sciences and with his theory of abstraction is indicated in the following sections.

1. *Relation to key texts of St. Thomas.* The speculative sciences are necessarily divided according to differences in the things which are presented to the intellect as objects of science. In St. Thomas' view, these differences in the objects of science (*speculabilia*) are controlled by two factors: immateriality, demanded by the intellectual faculty and immobility, by the habit of science. Our analysis of those two factors, leading to the distinction, not only of three degrees of immateriality, but of three corresponding degrees of immobility seems sufficiently justified in the preceding section. But the interrelation of the degrees of immateriality and immobility in specifying the object of science was merely indicated in the statement that "the principles of the higher orders are applicable also to the lower orders." [83]

a) *In Librum Boetii de Trinitate*: St. Thomas points out that the principles of mathematics are applicable to things in

[83] Oportet scientias speculativas dividi per differentias speculabilium, in quantum sunt speculabilia (*In lib. Boet. de Trin.*, q. 5, a. 1).

the physical order and that an intermediary science (*scientia media*) between purely mathematical and purely natural science is constituted by such application.[84] This intermediary science is considered by him to constitute a specific science, distinct from mathematics and natural science. Pure natural science considers the properties of natural things as such and pure mathematics considers quantity in itself.[85] But the intermediary science (*scientia media*) is formally mathematical and materially physical; its conclusions about things in the physical order are demonstrated through principles of the mathematical order.[86] Astrology and music are cited by St. Thomas as sciences in which such an application of mathematical principles to physical things is made.[87]

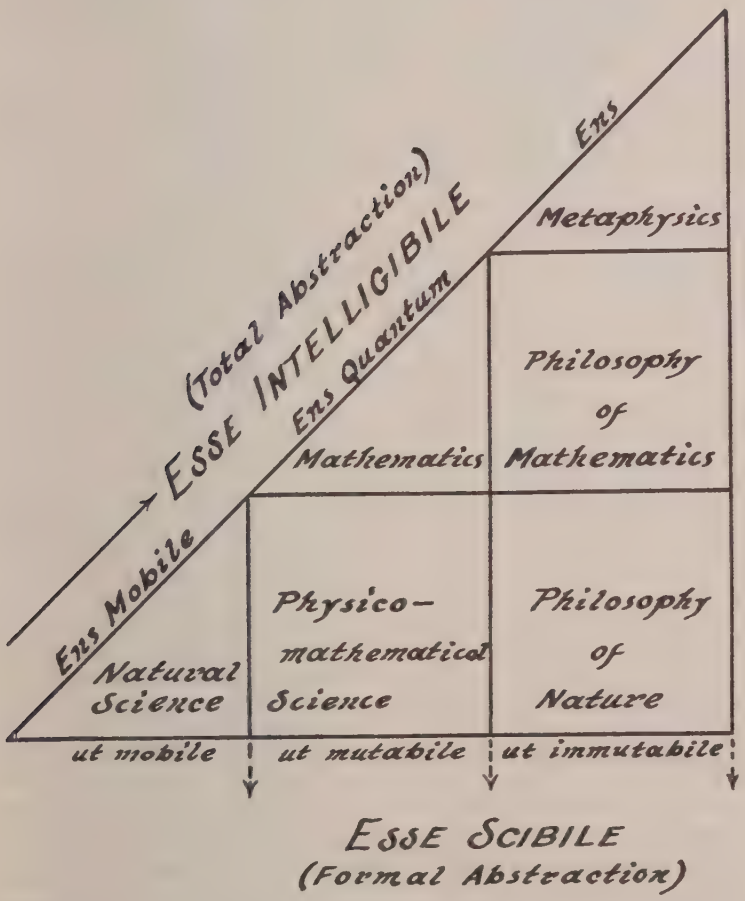
Following the terminology of Maritain,[88] this type of science is indicated in our diagram of the sciences as physico-mathematical. In terms of that diagram, it is the science of *qualitative being as mutable* (*ens mobile ut mutabile*) as distinguished from mathematics, *quantitative being* as mutable (*ens quantum ut mutabile*) and from natural science, qualitative being *as changing* (*ens mobile ut mobile*). Since the principles of the lower order cannot be applied to a higher order, there can be no science of quantitative being as changing (*ens quantum ut mobile*), no science which is formally physical and materially mathematical. There are only three basic sciences possible to the intellect which has not risen above the mathematical order for the principles used in its demonstrations. The other three basic sciences, metaphysics, the philosophy of mathematics,

[84] Et inde est, quod de rebus naturalibus et mathematicis ordines scientiarum tres inveniuntur. Quaedam enim sunt pure naturales, quae considerant proprietates rerum naturalium in quantum huiusmodi, sicut physica, et agricultura, et huiusmodi. Quaedam vero sunt pure mathematicae, quae determinant de quantitatibus absolute, ut geometria de magnitudine, arithmetica de numero. Quaedam vero sunt mediae, quae principia mathematica ad res naturales applicant, ut musica et astrologia, quae tamen magis sunt affines mathematicis, quia in eorum consideratione id quod est physici est quasi naturale: quod autem mathematici, quasi formale (*In lib. Boet. de Trin.*, q. 5, a. 3, ad 6um).

[85] *Ibid.* [86] *Ibid.* [87] *Ibid.*

[88] J. Maritain, *The Degrees of Knowledge* (New York: 1938), p. 52.

DIAGRAM OF SPECULATIVE SCIENCE



and the philosophy of nature are all formally metaphysical, proceeding from the immutable principles of being.

This is indicated in our diagram by their position in the same vertical plane *in esse scibili*, just as their material diversity is indicated by their different horizontal positions *in esse intelligibili*. The immutable principles of being are applied to being itself in the science of metaphysics but to quantitative being in the philosophy of mathematics and to qualitative being in the philosophy of nature. The science of metaphysics alone is the pure science of being, formally and materially metaphysical both in its principles and in the term of its judgments. It is the science of *ens ut immutabile*. But the philosophy of mathematics is formally metaphysical and materially mathematical; it judges the quantified beings of the mathematical order in the light of the immutable principles of the higher metaphysical order. Similarly, the philosophy of nature, in using those same immutable principles to judge the changing things of the physical order, is formally metaphysical but materially physical. For the philosophy of mathematics is the science of *quantitative being* as immutable (*ens quantum ut immutabile*) and the philosophy of nature is the science of *qualitative being* as immutable (*ens mobile ut immutabile*).

Of the six sciences included in our division of speculative science, three are pure sciences and three are intermediary sciences (*scientiae mediae*). Metaphysics, mathematics, and natural science are pure sciences, considering things in the metaphysical, mathematical, and physical orders in the light of the principles proper to each of those orders. Physico-mathematical science is the intermediary science (*scientia media*) between the mathematical and physical orders; the philosophy of mathematics and the philosophy of nature are intermediary sciences (*scientiae mediae*) between the metaphysical and, respectively, the mathematical and physical orders. Thus the six sciences included in our diagram are considered as six basic classes into which all speculative science naturally falls. Further evidence in support of this view is afforded in the following sections.

b) In his *Expositio in Libros Posteriorum Analyticorum*: St. Thomas states that the unity of a science is determined by the unity of its subject, the thing about which judgment is made.[89] He distinguishes three generic subjects of science according to the three degrees of immateriality, giving *ens*, *corpus mathematicum*, and *corpus naturale* or *mobile* as examples.[90] But to each genus he attributes first principles which are concomitant with it and he maintains that application of the first principles proper to a given order constitutes pure science in that order.[91] Similarly, he gives examples of intermediary sciences (*scientiae mediae*) in which the principles of a higher order are applied to things in a lower order.[92] For he maintains that the sciences are distinguished according to the diversity of their principles.[93]

Evidently the unity of subject which St. Thomas attributes to a science is only a material unity; unity of principles constitutes a formal unity.[94] According to our diagram, such a material unity would be attributed to natural science, physico-mathematical science, and the philosophy of nature, since

[89] Dicit ergo primo quod scientia dicitur una, ex hoc quod est unius generis subjecti. Cuius ratio est, quia processus scientiae cuiuslibet est quasi quidam motus rationis. Cuiuslibet autem motus unitas ex termino principaliter consideratur . . . et oportet quod unitas scientiae consideretur ex fine sive ab termino scientiae. Est autem cuiuslibet scientiae finis sive terminus, genus circa quod est scientia: quia in speculativis scientiis nihil aliud quaeritur quam cognitio generis subjecti (*In Anal. Post.*, lib. 1, lect. 41).

[90] *Ibid.*

[91] Patet ergo quod ad diversificandum scientias sufficit diversitas principiorum, quam comitatur diversitas generis scibilis. Ad hoc autem quod sit una scientia simpliciter utrumque requiritur et unitas subjecti et unitas principiorum (*ibid.*).

[92] Unde patet quod quando ea, quae sunt lineae simpliciter, applicantur ad lineam visualem, fit quodammodo descensus in aliud genus . . . quod est unius scientiae non habet probare alia scientia, nisi forte una scientia sit sub altera, sicut se habet perspectiva ad geometriam, et consonantia vel harmonia, idest musica, ad arithmeticam (*ibid.*, lect. 15).

[93] Cf. note 90, *supra*.

[94] Cum ergo scibile sit proprium objectum scientiae, non diversificabuntur scientiae secundum diversitatem materialem scibilium, sed secundum diversitatem eorum formalem. Sicut autem formalis ratio visibilis sumitur ex lumine, per quod color videtur, ita formalis ratio scibilis accipitur secundum principia, ex quibus aliquid scitur (*In Anal. Post.*, lib. 1, lect. 41).

qualitative being (*ens mobile*) is their common subject-matter. Formally they are distinct sciences, each demonstrating its conclusions through principles proper to different orders. This diversity of principles is indicated diagrammatically in the different positions which each of these sciences occupies *in esse scibili*.

2. *Relation to doctrine of abstraction.* In our introductory section, abstraction was proposed as the doctrinal key to the Thomistic division on speculative science. We signified our intention of following the terminology of St. Thomas, and described his distinction between the modes of abstraction characteristic of the simple apprehension and the judgment as vital to a proper understanding of his doctrine on the division of speculative science. In our analysis of the part played by the intellect and by the habit of science in conditioning the object of science, three sub-divisions of each of these primary modes of abstraction were indicated. The intellect was found to apprehend things in three degrees of immateriality; the habit of science was found to judge things according to principles expressed in three degrees of immobility.

Throughout this analysis, the terminology of St. Thomas was preserved in the interests of accuracy of interpretation and uniformity of expression. It was only in determining the interrelation of these two factors of immateriality and immobility in controlling the object of science, that John of St. Thomas' distinction between *esse intelligibile* and *esse scibile* was introduced as adaptable for a summation of St. Thomas' doctrine. In our diagram, *esse intelligibile* thus expresses the degree of immateriality found in the object abstracted by the first operation of the intellect. It indicates the level of intelligibility achieved in the simple apprehension. *Esse scibile*, indicating the degree of immobility found in the principles used in judgment, completes the expression of the object of science in terms of its immateriality and immobility.

This manner of indicating the distinctions between the various speculative sciences seems perfectly satisfactory and in

harmony with St. Thomas' notion of abstraction as explained in the preceding chapter. But since Thomists, following Cajetan, have traditionally used the terms *total* and *formal* abstraction, a possible application of those terms to our division is suggested parenthetically. The four-fold difference which Cajetan notes [95] between these two modes of abstraction, seems to warrant the view that total abstraction can be attributed to the intellect in its simple apprehension and formal abstraction to the habit of science in its judgments. Cajetan maintains that it is within the different modes of formal abstraction that the speculative sciences are distinguished; total abstraction is common to all science.[96] It must not be thought that he identifies formal abstraction with the intellectual apprehension of quantitative being, nor total abstraction with intellectual apprehension at the physical level.

II. THE POSITION OF MATHEMATICS IN SPECULATIVE SCIENCE

The central issue raised by modern progress in mathematics concerns the position of mathematics with respect to the other speculative sciences. Admitting legitimate progress within the pure science of mathematics and tremendous developments in the physico-mathematical sciences, Thomists have refused to concur in the tacit denial of metaphysics and the substitution of mathematics as the supreme regulator of science.[97] They have been unwilling to abandon the traditional concept of a hierarchy of science which permits a limited regulative role to mathematics in interpretating the data of physical science, yet demands a certain dependence of mathematics on metaphysics. Our diagram of the speculative sciences is offered as affording a more precise indication of these regulated and regulative functions of mathematics, through fixing its position in the hierarchy of speculative science.

[95] Cajetan, *Comm. in de Ente et Essentia,* q. 1.

[96] Quia penes diversos modos abstractionis formalis scientiae speculativae diversificantur . . . . Abstractio autem totalis communis est omni scientiae (*ibid.*). Cf. *supra* (9).

[97] J. Maritain, *op. cit.,* p. 245.

1. *Regulated functions of mathematics.*

a) *Pure Mathematics*: Mathematics, as indicated in our diagram, is not directly regulated by metaphysics. It is pure science at the mathematical level of intelligibility, capable of its own intrinsic development.[98] As the science of quantitative being as mutable (*ens quantum ut mutabile*), it considers quantitative being as quantified, as potentially divisible into quantitative parts which can be numbered or measured.[99] Reflecting on the quantitative being attained by simple apprehension at the mathematical level, the mathematician can distinguish its quantitative parts and use them as principles of demonstration. These quantitative principles are not borrowed from metaphysics. They are principles proper to the mathematical order, concomitant with the mathematical being apprehended in that order.

It is in this sense that mathematics is recognized by Thomists as autonomous within its own field,[100] but that very autonomy is guaranteed and defended by metaphysics. Metaphysics rules mathematics negatively by restricting it to its own proper sphere; by limiting its conclusions to the field of mathematics without dictating those conclusion.[101] Metaphysics, from its position at the summit of human science, restricts mathematics to the lower mathematical order of quantitative being and limits its conclusions to the principles of mutability proper to that order. Reserving to itself the consideration of being as immutable (*ens ut immutabile*), it concedes to mathematics the consideration of quantitative being as mutable (*ens quantum ut mutabile*). But if the mathematician seeks a deeper insight into the quantified beings which he studies, if he wishes to

[98] *Ibid.*, p. 60.

[99] *Ponit species quantitatis;* inter quas primae sunt duae; scilicet multitudo sive pluralitas, et magnitudo sive mensura. Utrumque autem eorum habet rationem quanti, inquantum multitudo numerabilis est et magnitudo est mensurabilis. . . . Multitudo est, quod est divisibile secundum potentiam in partes non continuas. Magnitudo autem quod est divisibile in partes continuas (*In V Metaph.*, lect. 15).

[100] M. J. Adler, *What Man Has Made Of Man* (New York: 1937), p. 27.

[101] *Ibid.*

defend and explain the principles which he uses in his own field, he must look to metaphysics.[102] The ultimate explanation of the axioms and assumptions of all science is rooted in the immutable principles of being itself.[103]

b) *The Philosophy of Mathematics*: This science, as indicated in our diagram, is directly regulated by mathematics. It is the intermediary science (*scientia media*) between mathematics and metaphysics: materially mathematical in its subject-matter, quantitative being (*ens quantum*), and formally metaphysical in its immutable principles. It is the science of quantitative being as immutable (*ens quantum ut immutabile*), a distinct science which uses the immutable principles of metaphysics to gain a deeper knowledge of mathematical being. Only in such a philosophy of mathematics, using the immutable principles of being itself, will the axioms and assumptions of mathematics receive adequate defense and explanation. For while the pure science of mathematics is not directly dependent upon metaphysics for the attainment and use of its first principles, it is utterly incapable of explaining and defending them.[104]

But metaphysics, from the very fact that it has being as its object, also covers somehow all the inferior sciences which treat of particular beings or particular aspects of beings, and may judge them, defend these sciences and use them. . . . Reflecting on mathematics, metaphysics becomes philosophy of mathematics, which is only materially mathematical, even though the data used be formally mathematical.[105]

2. *Regulative functions of mathematics.*

a) *Physico-mathematical Science*: The regulative role of mathematics in interpreting the data of physical science is indicated, in our diagram, by the position of mathematics

[102] J. Gredt, *op. cit.*, I, 185.
[103] J. Maritain, *op. cit.*, p. 62.
[104] *Ibid.*, p. 60.
[105] C. D. De Koninck, "Thomism and Scientific Indeterminism," *Proc. Am. Cath. Phil. Assoc.*, XII (1936), 75.

immediately over physico-mathematical science. The later science is the intermediary science between the mathematical and physical orders, judging the changing things of the inferior order by the principles of the higher, mathematical order. For although the consideration of motion does not pertain to pure mathematics, St. Thomas cites instances in which the mathematical principles of measure and number are legitimately and effectively employed in studying motion and change in physical things.[106] Maritain, therefore, aptly describes this type of science as

> a *scientia media*, of which the typical examples to the ancients were geometrical optics and astronomy: an intermediary science, halfway between mathematics and empirical natural science, of which the physically real forms the subject-matter in regard to the measurements which it allows us to draw from it, but whose formal object and conceptual procedure remain mathematical: a science which we may call *materially physical* and *formally mathematical*.[107]

In exercising this regulative function, mathematics is perfectly within its rights. As a superior science, it can exert a directive and interpretative influence in physico-mathematical science, comparable to that of metaphysics in the philosophy of mathematics and in the philosophy of nature. But it is imperative that such a comparison take full cognizance of the wide divergence in the principles which mathematics and metaphysics bring to bear on the sciences inferior to them. It must be remembered that physico-mathematical science producing "both scientific knowledge and a marvelous technical power over nature," is proceeding, "from the point of view of quantity, not that of being."[108] In the terms used in our division of science, it is the science of qualitative being as mutable (*ens mobile ut mutabile*). As such it constitutes a specific science, distinct not only from mathematics but also from natural science and the philosophy of nature. Its relations to mathe-

[106] *In lib. Boet. de Trin.*, q. 5, a. 3, ad 5um et 6um.
[107] J. Maritain, *op. cit.*, p. 52.
[108] *Ibid.*, p. 56.

matics, upon which it is formally dependent for its principles, has already been described. The limitations of its field, in relation to the other two basic sciences in the physical order, are indicated in the final section.

b) *Inter-relation of basic sciences in the physical order*: The material identity and formal diversity of natural science, physico-mathematical science, and the philosophy of nature is evident from their relative positions in our diagram of speculative science. Qualitative being (*ens mobile*) is their common subject-matter; their judgments all terminate in the physical order, but the principles each employs are formally distinct, originating in different orders. It is this formal difference in principles which constitutes them specific sciences: natural science, using principles proper to the physical order; physico-mathematical science, principles proper to the mathematical order; and the philosophy of nature, principles of the metaphysical order. Natural science is pure science in the physical order; physico-mathematical science is the intermediary science between the physical and mathematical orders; the philosophy of nature is the intermediary science between the physical and metaphysical orders.

Natural science, pure science at the physical level, considers changing things as changing; it considers qualitative being as mobile (*ens mobile ut mobile*). As indicated by its position, it is not directly dependent upon either mathematics or metaphysics; it is perfectly autonomous within its own field. Yet its very position at the opposite extreme to metaphysics, at the lowest point in *esse intelligibili* and in *esse scibili*, marks the narrow limits of that field. The degree of immateriality realized in its object is the bare minimum sufficient to place it in the intelligible order and the immobility attributed to its principles is the minimum required to constitute it in *esse scibili*. Natural science must, in fact, consider the changing thing as changing (*ut mobile*). It is only by restricting its consideration to a certain type of change, by controlling and correlating all the variant factors, and by multiplying its observations that natural science

achieves a degree of immobility in its principles and a measure of necessity in its conclusions. For natural science seeks only "to discover the interconnexion of the phenomena of change, the correlation of the accidental variables which, in their covariancy, present to us the uniform face of a changing world." [109]

But the mind of man has never rested content with this superficial knowledge gained in natural science. Consciously or not, men have always sought a more radical explanation for the manifold changes of this changing world. The natural attraction of the intellect toward the higher orders has constantly led to the interpretation of the data of natural science in the light of mathematical and metaphysical principles. Evidence of that attraction is discernible at every period in the history of human thought. Its direction and intensity alone have varied. Predominantly mathematical in its trend today, natural science in the past looked almost exclusively to metaphysics for an explanation of problems suggested, but unanswered, in its own restricted field. Failure to recognize these tendencies and their influence on the findings of what is loosely called "natural science," in the generic sense of science at the physical level, has been an endless source of misunderstanding for all concerned.

Adler observes:

> The composite character of ancient physical writings—partly philosophical in method and partly scientific—requires great care in the modern reader, who must distinguish philosophical principles from scientific knowledge of particular matters of fact. In the latter sphere it is to be expected that the ancients would make many errors; but these errors do not affect the validity of their principle.[110]

Following his own suggestion, he classes the *Physics* of Aristotle as "purely philosophical" and the *De Coelo* and the *De Generatione et Corruptione* as "in some part also," philosophical.[111] St. Thomas, in fact, seems to indicate that these

[109] M. J. Adler, *op. cit.*, note 9, p. 147. [110] *Ibid.*, p. 21. [111] *Ibid.*, 19 ff.

three books of Aristotle's works on " natural science " might well be considered in our classification as, respectively, philosophy of nature, physico-mathematical, and natural science.[112] Certainly St. Thomas was not unaware of the essential diversity of these three basic sciences. His insistence upon astronomy as an intermediary science between pure science in the physical and mathematical orders is proof of that.[113]

It is equally important that we recognize the place these three sciences hold in current scientific works. Modern physics, physical chemistry, and to a great extent the whole field of chemistry, are physico-mathematical sciences. Proceeding formally from mathematical principles, they are the modern counterpart of the more ancient intermediary sciences such as astronomy and are included in our diagram under the physico-mathematical sciences. Sciences of the biological type, less amenable to mathematization, continue to consider " sensible and observable being in the very degree to which it is sensible and observable." [114] It is for this reason that they are classed as natural science in our division. However these pure sciences

[112] Praecedunt autem hunc librum, secundum ordinem, in scientia naturali tres libri. Unde tria facit. Primo ponit de quo sit actum in libro *Physicorum*. In quo quidem, quantum ad duos primos libros ejus, agitur de causis naturae, . . . ut intelligantur *primae causae naturae* prima principia, quae sunt materia, forma, et privatio, et etiam quattuor genera causarum, scilicet, materia, forma, agens, et finis. In sequentibus autem libris *Physicorum* agitur de motu in generali . . . Secundus scientiae naturalis liber est liber *de Coelo et Mundo*, . . . Tertius liber scientiae naturalis est liber *de Generatione*: in quo determinat de permutatione elementorum in invicem, in secundo libro, et de generatione et corruptione in communi in primo libro (*In I Meteorlogicorum*, lect. 1).

Et ideo rationabiliter videtur sententia Alexandri, quod subjectum huius libri sit ipsum universum, quod dicitur *coelum vel mundus*; et quod de simplicibus corporibus determinatur in hoc libro, secundum quod sunt partes universi. Constituitur autem universum corporeum ex suis partibus secundum ordinem situs: et ideo de illis solum partibus universi determinatur in hoc libro, quae primo et per se habent situm in universo, scilicet de corporibus simplicibus. Et ideo de quattuor elementis non determinatur in hoc libro secundum quod sunt calida vel frigida, vel aliquid huiusmodi: sed solum secundum gravitatem et levitatem, ex quibus determinatur eis situm in universo. . . . Et hoc consonat ei quod consuevit apud Latinos dici, quod in hoc libro agitur *de corpore mobili ad situm*, sive *secundum locum*: qui quidem motus communis est omnibus partibus universi (*De Coelo et Mundo*, lib. 1, proemium).

[113] Cf. footnote 83, *supra*.

[114] J. Maritain, *op. cit.*, p. 81.

at the physical level, lacking the reassurance which mathematical principles impart to physico-mathematical science, must look beyond mathematics to metaphysical principles for the support and defense of their own principles and conclusions.

The philosophy of nature, the science of qualitative being as immutable (*ens mobile ut immutabile*), can alone reveal the ultimate ontological principles underlying motion and change. Physico-mathematical science, " having abandoned the direct search for real causes in order to devote itself to the translation of the measurements of things in a coherent system of equations," [115] reveals only the quantitative connection with qualitative change. But the ultimate explicative value of the philosophy of nature arises from its position at the highest point, in *esse scibili*, of all the sciences in the physical order. For even in the physical order, at the lowest level on intelligibility, metaphysics reigns supreme through its transcendent, immutable principles.

> In the determination of the nature and true value of physico-mathematical science, the place, the part, and the bearing of its explications, metaphysics not only maintains order in the system of our forms of knowledge, but renders to physico-mathematics the essential service of protecting it against otherwise almost inevitable deformations, above all, against the pernicious illusion that it is itself called on to be a philosophy of nature and the belief that things only begin to exist when submitted to the measurement of our instruments.[116]

It is in its clear indication of the inter-relation and respective limits of the basic fields of science, that the principal merit of our diagram is seen. For it is only by a precise determination of the position of mathematics in the hierarchy of speculative science that its regulated and regulative functions can be properly evaluated. The diagram is proposed simply as a preliminary step in that direction, a step toward Maritain's ultimate goal of " systematic interpretation."

Dominican House of Studies,
Washington, D. C.

JOHN F. WHITTAKER, O.P.

[115] *Ibid.*, p. 56.

[116] *Ibid.*, p. 80.

BOOK REVIEWS

Man on His Nature. The Gifford Lectures, Edinburgh 1937-38. By Sir Charles Sherrington, New York: The Macmillan Co., 1941. Pp. 413.

This is a remarkable book, written by a remarkable man. It is a book brimful of information, a sincere book, a book which wrestles with great problems and endeavors to find a way towards their solution. Much of its contents may be accepted, partly as factual statement, partly as possible and interesting outlook. Much, however, seems unacceptable, because the author, although he evidently has given much thought to his problems, overlooks aspects of them or envisions them from an angle which allows only an incomplete and a distorted view. Sir Charles is among the most outstanding physiologists of the day. His book *The Integrative Action of the Nervous System*, of 1906, marks the beginning of a new era in neurophysiology. Hardly any other scholar has contributed as much to our knowledge of nervous function and none has shown so much critique and objectivity in forming his conclusions. Many of the facts mentioned in this book were discovered by the author; but the name of Sherrington is found nowhere. The man disappears behind his work.

The Gifford Lectures are on Natural Theology. The founder wished Natural Theology, as Sir Charles tells us, "to be considered just as Astronomy or Chemistry." The approach evidently has to be empirical. It seems, however, that Sir Charles has a conception of Natural Theology other than the usual one, and perhaps even the one Lord Gifford had in mind. To the author Natural Theology does not mean speculation on God and allied subjects on the basis of natural experience and with the means of reason. He seems to consider rather a Theology of Nature, as if the task were to replace the Divine by Nature. There are other features which denote a somewhat peculiar attitude towards things theological. Sir Charles tries sincerely to be just to the minds of past ages and to their ways, in regard to the interpretation of human nature and of the world in general. His excursions into the realm of the history of science are not the least interesting parts of his book. Sir Charles knows Aristotle and Kant; he is unusually widely read in fields rather far from his own work, but this reviewer cannot help feeling that the eminent author did not quite grasp the meaning of things to which he sometimes refers. Instead of quoting certain passages, it might be as well to comment on Sir Charles' interpretation of two prints taken from old books. One is the title-page of Fanti's *Triompho di Fortuna* (Venice 1527). On this woodcut one sees Time as a giant, carrying on his shoulders the Earth whose axis is provided with handles, the one in the hands of an angel, the other grasped by a devil.

On the sphere sits the figure of a pope; on his right is a female figure, pointing to the sky, at his left another woman, pointing downwards. The first, sitting on the side where the angel holds the axis, is dressed like a nun; the other seems attired in a worldly manner and sits on the devil's side. The allegory is simple. But Sir Charles writes: "A seated figure of Religion wearing the triple tiara, attended by two angels. . . ." Furthermore, he refers the inscription on a scroll above the pope's figure: *Virtus* and *Voluptas* to the axis-turning figures, whereas these names belong, as is indicated in the cut, to the two attending allegorical figures. Now, anyone acquainted with the mentality of the Middle Ages or the times soon afterwards would understand the allegory and know the figures. The other print reproduces an illustration in the *Rosario della gloriosa Vergine Maria* (Venice 1561), and depicts three male figures with naked backs being scourged by a henchman of three judges standing in the background. An inscription above reads: *Gli Apostoli furono battuti*, and refers evidently to *Acts*, V, 40. Over the head of each of the three Apostles there is a flame—again a well-known symbol. Sir Charles has this to say: "It (the soul) could enter and leave the body, could assume for itself visible shape. The craftsmen of old times would depict it as a flame, an aura." Such misinterpretations may seem insignificant; they are not. They reveal a certain farness, a lack of comprehension, in spite of the best will, a fact not uncommon with scientists when they approach matters of history or of speculation. The scientific mentality creates, it seems, a peculiar disposition which bars the way to a real understanding of history and everything not of pure science.

This is not to reproach the author with prejudice, in any sense. He does not accuse the faithful of superstition, nor does he explicitly deny the existence of the supernatural; he only sees no way of arguing to it merely from the data of experience. The farther knowledge progresses, the less sure we become of the arguments in Natural Theology which appeared very satisfactory to our ancestors. Indeed, the book begins by describing the ideas of a once famous French physician of the XVIth century. Jean Fernel, to whose opinions the author refers repeatedly in later chapters, published in 1542 a work from which "the modern text-book of physiology starts." Fernel's ideas were those of a shrewd observer, an inquisitive student of nature, health, and disease, and of a post-medieval Aristotelian. His philosophy is what Sir Charles understands least. Also, when comparing Fernel's remarks with corresponding passages in Aristotle, the author forgets the existence of the whole medieval Aristotelianism. He is ignorant of the fact that the sixteenth century, notwithstanding humanism, still read Aristotle mostly in the spirit of the commentaries of Aquinas and his followers. Fernel was a scientist; he criticized superstitious beliefs, rejected astrology, and thus may in fact be considered as a "modern mind." But to him and his contemporaries, man still was the center of the world—

"Nature's chief object and her special care." Gradually things changed; the microscope, the methods of chemistry, experimental research, wrought havoc with the old ideas. A new conception of life, and of man's place in nature developed. Sir Charles manages to condense into some few chapters an enormous amount of facts and theories and to state them in a generally intelligible manner. There can be hardly any better introduction to the science of life, as it exists today. It is fascinating reading. These parts, however, do not lend themselves to an abbreviated rendering. Also, the fundamental ideas are more important than the evidence adduced to substantiate them.

One of these ideas is the firm belief in evolution. According to Sir Charles, there is a thorough continuity, from lifeless matter through the lowest and lower organisms to the higher and highest, to man himself. The other idea. however, is not so common with scientists and biologists. Sir Charles conceives of mind as essentially different from energy. He believes, or would like to believe, that mind is coextensive with matter. He sees mind appearing gradually; in the higher animals there is definitely more of mind than in the lower. Since continuity is a basic principle with the author, it is logical that he speaks of an "unrecognizable mind" in lower organisms or even in dead matter. But he is fully aware that this is a hypothesis; when he makes any concrete statement on mind, he refers always to "recognizable" mind. Here too he sometimes is led astray as when he speaks of conceptualization observable in the rat, because this animal may "learn" to recognize shapes, triangles or squares. This, however, is not an achievement which necessitates any truly intellectual operation. The fact that in the human mind there appears a new function—intellect—which is not observable in brutes is disregarded. This is probably less the error of the author than of the authorities on which he relies; to-day's psychology is very careless in the use of terms and not willing at all to recognize the essential difference between a concept and an image, or between the mere sensory awareness of likeness and the abstraction of an universal nature. Mind, then, evolved but it did not evolve out of matter; it cannot be reduced to matter and material changes. We may be truly grateful to Sir Charles for making this statement and for corroborating it by his extensive knowledge of facts. If a Sherrington can take seriously, and even declare unavoidable, the notion of a non-material factor mind, we need not worry much about the declamations of so many *dii minorum gentium*.

Not to leave any doubt on his conception of mind, Sir Charles carefully avoids speaking of the brain as the organ of mind, or in a similar way, as do most of the physiologists and not few of the psychologists. To Sir Charles the brain is an "organ of liaison," the place where, so to speak, the immaterial mind-factor gets hold of the energy-system of the organism.

Though strictly maintaining the notion of continuity and of evolution in regard to mind, Sir Charles is not at all blind to the enormous differences obtaining between animal and human mind. This too is something for which to be grateful. One may also admire the pathos of the author's creed, his trust in man, and his hopes for the future development of mankind. One may share with him the feeling that there is, in man, a "sacred curiosity," but his Natural Religion is no religion at all. It claims to be (and in this it is set over against all religions in the usual sense) free from all "anthropomorphism." It does not speak of a personal God; it does not speak of any God. "It sublimes personal Deity to Deity wholly impersonal. In a manner the Θεός of Aristotle is that which it re-approaches." Perhaps this is so, but the Aristotelian "God" lacks, as is evident, all the essential features of what man ever conceived by this name, let alone what revelation taught. This Natural Religion, Sir Charles claims, is not devoid of emotion. It lives by the passion for truth, but it is a limited truth it recognizes. It also is alien to the emotions aroused by beauty; understanding of Nature "is no premise in the argument of Nature's beauty." Even if we disregard for a moment the true notion of religion and consider only Sir Charles' position, is it only Nature which allows man to discover truth? There is, e. g., the whole field of pure mathematics; there is history; there are many things which can scarcely be included under the general name of Nature.

Sherrington's man, looking at his nature, has a somewhat narrow field of vision, but within this field he sees many things, well worth knowing. We cannot consider as satisfactory Sir Charles' treatment of Natural Theology nor the way he deals with problems of religion and philosophy in general. The book, however, should not be left unread. The splendid objectivity with which the author approaches his subject allows his statements to be used in a way he perhaps may not like. It seldom happens that an author distinguishes so accurately between the facts and the interpretations, or that he states as clearly what his principles are. This book is, in spite of all its objectionability, a great book.

RUDOLF ALLERS

Catholic University of America,
Washington, D. C.

From the Stone Age to Christianity: Monotheism and the Historical Process. By WILLIAM F. ALBRIGHT. Baltimore, The Johns Hopkins Press: 1940. Pp. xi-363. $2.50.

This enormously informative book has something grandiose about it. Indeed, in the sweep of its plan, *From the Stone Age to Christianity* is a staggering undertaking: "to show how man's idea of God developed from

prehistoric antiquity to the time of Christ, and to place this development in its historical context." To write such a book one would have to be an archaeologist, linguist, historian, philosopher, and to some extent, a theologian. Mr. Albright is all of these things to a greater or lesser degree, although his fame rests most securely upon his work in archaeology, linguistics and biblical history. The book is a bold project before which a less courageous man would have drawn back.

In the execution of his project the author proceeds by assembling the facts upon which his argumentation will rest. The initial chapter ably presents the reader with the fruits of the archeological researches of the past hundred years. When we remember how rapidly one sensational discovery displaced another in this field within recent years, we cannot but be grateful for this brief résumé, in which some of the almost esoteric knowledge of the diggers is made public, as, e. g., Sir Flinders Petrie's discovery of the use of potsherds to establish dates. But excavations are one thing; interpretation is another. An interpreter must familiarize himself with the historical interpretation of the data; this Mr. Albright has not failed to do. He has many excellent remarks about the oral (and written) transmission of history (pp. 37 ff., 205).

He approaches the philosophical side of his problem in orderly fashion. Tentative formulations of a satisfactory philosophy of history from Hegel down through Toynbee and Sorokin to the present are passed in review, criticized, and found generally wanting. Logically it was then incumbent upon the author to proffer his solution. This he does. What follows in the remaining four chapters is an application of his theory to human history, from the age of primitive religion through Moses and the Prophets to Jesus Christ.

Thus it is clear that we have here a book which is much more important than a mere assembling of facts; it is a *method*, based upon a reasoning which permeates the whole book. One might write from now until doomsday discussing, agreeing, and disagreeing with the author over a score or more of details, inferences, and conclusions; but the real question is more fundamental. We must examine the author's philosophy, which is the leaven giving life to the whole mass of assembled details.

I

One of the most alluring traits of modern philosophies of history is their apparent conclusiveness, their tangibility. The neat precision of Hegel's famous triad has cast its charm over many scholars, and yet life laughs at the clerkish mind. The simplicity of the system of evolution too has left its mark,[1] though one of its fundamental assumptions is open to

[1] "It is no longer possible to construct a philosophy of history without assuming some kind of evolution. . . ." (P. 49).

serious question or even downright denial, namely, that progress follows a line from the most elementary and then evolved into more complex forms. Much more comprehensive is the scholastic philosophy that history is a record of man's march toward his goal under the beneficient, efficacious, guidance of divine providence. A more specific formulation is almost certain to overlook some of the facts; and is in fact impossible because the philosopher of history must deal with man endowed with freedom, undetermined in his actions. It is therefore practically unsafe to predict his manner of action, except of course in generalities.

Dr. Albright characterizes his system as one of "rational empiricism." Judging from his use of such terms as "pattern, organism, etc.," he appears to look favorably upon Holism and the *Gestalt* psychology. Both are an improvement over former systems of excessive analysis and minute observation of phenomena which degenerated into uncoordinated and unsynthesized laboratory work, but at the same time neither system can escape the fatal touch of the mechanistic outlook upon life, and Holism is based upon the absurdity that the greater comes from the less, that the superior is subject to the inferior, and is an extension of the biological concept to the inorganic world.

One may thoroughly disagree with Mr. Albright when he states that "there is no basic epistemological difference between *comparable* fields of history and science" (p. 77). In this he makes a wholly unnecessary concession to the positivists. History is knowledge of particular events or things which not only existed in the past but underwent a series of changes in the course of time, whereas science is not concerned with the past *as such* and treats of matters that can happen at any time or place. The historian deals with the pattern of human events, and that is a pattern which is constantly changing; but science wants to find out how things happen for the most part or in every case—it seeks generalizations, or laws of things that do not change. It matters little if the author cautiously appends the warning that as variations in man's activity become increasingly numerous, "our laws become progressively less general and less binding or more uncertain" (p. 78); the hunt is on for an immutable law or pattern which will be a key to unlock the riddle of history. Immutable law there is none when it is a question of the properly human development of man. One may not therefore say that "the difference between science and history is primarily one of variability, not of logical method" (p. 78).

At length (p. 82 ff.) the author rears his own philosophical reconstruction of history. The pattern of history falls into three broad categories: undifferentiated, differentiated, and integrated culture. It is his conviction that "the Graeco-Roman civilization of the time of Christ represented the closest approach to a rational, unified culture that the world has yet seen, and may justly be taken as the culmination of a long period of relatively

steady evolution" (p. 83). Such a statement is sweepingly impressive, but not altogether convincing. If we limit ourselves for the moment to a purely rational point of view, there is a great deal of truth in what Mr. Albright says; but on the other hand, from a Christian point of view, what he says is an overstatement. It closes its eyes to the splendid flowering-forth of culture and religion which occurred in the Middle Ages, when thought, architecture, and politics made gigantic strides fully comparable to those of the Greeks and Romans. It is true that from a purely rational point of view nothing can be favorably compared to the achievements in art and thought in the ancient world, but we must recognize that it was a sad world without a soul, and without a just appreciation of man himself. At any rate, looking back into history during the period that has captivated and won the admiration of many excellent scholars, we find that the then current attitude towards women and religion was not exactly what we should expect from "the closest approach to a rational, unified culture."

Another broad classification of human history is made on the basis of man's mental achievements. Mr. Albright speaks with assurance of a primitive type of man whose thought was corporative and prelogical. With the Greeks of the fifth century B. C. there began an era of logical thinking, in which the individual began to receive tardy recognition; and personalism replaced corporatism. Statements such as these leave one gaping in astonishment. It is neither correct nor accurate to speak seriously of prelogical thought, as is done on pp. 84, 124, 129 and *passim*. It is gravely maintained that primitive men were capable of abstraction,[2] but only after the manner in which a day-laborer might be capable of discoursing learnedly on ballistics—a possibility unrealized and apparently unrealizable. So at least it is stated: "logical and philosophical abstraction were foreign to them" (p. 129). Now for a follower of St. Thomas and Aristotle, logic deals with ideas and their orderly exposition. By its very nature thought cannot be anything but logical. Whatsoever kind of primitive man, therefore, that we may conceivably postulate, his most elemental thought must have been logical, i. e., ordered. In justice to the author, however, it should be pointed out that the context seems to make prelogical synonymous with non-empiric and non-systematized thought—this is not clearly stated until p. 251. Either term would have been preferable to that adopted from Lévy-Bruhl.

The theory that corporatism was eventually replaced by individualism or personalism (again the terminology of Lévy-Bruhl), is as electrifying as a short-circuit. Such a statement would have annoyed St. Thomas exceedingly, for Aquinas had the greatest respect for man whom he analyzed so painstakingly. Taking man as man living with his fellow humans, it can

[2] In fact, through it they came to the idea of the "divine" from "divine being(s)" by 3000 B. C. (p. 130).

never be truthfully held that he ever so far forgot himself that he thought that the end of the group was more important than his own personal goal. He was always conscious that his rights as an individual did not depend upon the society in which he lived. Before a man is a member of any society or union, he is a person, a thinking individual; a statement which the Wolf Children of India or the Mexican Boy have not succeeded in disproving. Without man the society or corporation could not exist; in fact, it exists only *for* man: and it is incredible that he ever ceased automatically to be a man when he became a member of society, i. e., that he relinquished his inherent faculty of personal reasoning. Evolutionists may find no difficulty in accepting this theory, but at bottom it is lacking in those elements of truth which give firmness to a system.

Following this, the author states his conviction that "an inductive organismic philosophy is the only proper way in which to approach the problem of the relation of historical contexts to one another" (p. 84). When one culture succeeds another, he says, it is almost always done abruptly; Mosaism was such a break, and is representative of evolutionary mutation (p. 86). He does not believe in any causal-functional linking together of the elements which make up a pattern of culture; each case must be judged by itself. In so saying he frees himself from the stigma of being called an historical determinist, but the repeated references to evolution give rise to the suspicion that he is. History and Nature are one, as he says (p. 87), but this is true only in the sense that both are workings out of the divine plan; not in the sense that both are determined in their modes of operation.

II

Chapters three and four, entitled *Praeparatio* and *When Israel was a Child*, open the treatment of religion, and there we meet the assumption that the peoples of antiquity were cast in the same mould. Since, therefore, other Semites developed and radically changed their ideas regarding a Supreme Being, the ancestors of the Hebrews are believed to have done likewise (p. 184, 186). Fr. Schmidt's thesis of primitive monotheism, briefly summarized on p. 125, would bear a more careful consideration on this point. However, Mr. Albright sagely remarks that henotheism (or the adoration of one principal deity together with that of lesser deities) need not necessarily be supposed at any time during the history of the Hebrews (p. 220). There is no question that from the time of Moses the Hebrews were unique in matters of religion.

Mr. Albright's position upon these matters is as follows: Yahweh was "he who causes to be," and he was one and aniconic. Before Moses the principal Hebrew deity was a mountain god (p. 186); and the story of Moses' dealings with God upon Sinai may prove, not that he was a moon

god (p. 201), but that the story as we have it was infected with folk memories of neighboring volcanic eruptions (p. 200). Sacrifice was a means of "bringing the deity into dynamistic relationship to his worshippers" (p. 203). The apodictic laws of the Hebrews (as opposed to casuistic laws which were similar to those of Hammurabi [3] and to the Hittite and Assyrian Laws), trace back to Moses (p. 204-5). The concept of a single god, creator of all things and universal in the exercise of his power, may betray Egyptian influences (p. 206). Adding up, Moses was a monotheist, but not as Paul, Augustine, Thomas Aquinas and Calvin were monotheists.

The above remarks, if they prove anything, show only that the author is in some respects more restrained and sensible in his conclusions than many other writers in the same field, but they show also that his philosophy of pattern, of historical determinism (evolution), is hard at work. That the Hebrews evolved their God much as Canaanites and others evolved their gods is in no way conclusively proved.

The fifth chapter, *Charisma and Catharsis*, deals specifically with the ages of the Judges and of the Prophets. The author speaks of the process of Canaanization of sacrificial ritual and practice, which is a clever and amusing way of saying that the Hebrews adapted some of the pagan religious ritual. Nothing militates directly against adopting this view; the early Christians likewise borrowed and christianized pagan names and practices in religion. But at the same time it must always be borne in mind that such similarities are not always due to borrowing, but may at times be accounted for satisfactorily by the fact that the field of religion is automatically limited by man himself. That is, postulating a relationship between rational beings and God, it stands to reason that man's manifestation of his subjection to this Superior Being will find expression in a manner adapted to or befitting his own nature. It is then utterly obvious that there will be similarities in sacrifice, sanctuary, etc., but these material similarities do not compel one to conclude that there was a formal connection between different sets of religious acts, or, more especially, religious ideas. But there was always the danger that the people might be misled by such practices, and this very real danger was met by the prophetic movement.

Prophetism, for the author, takes its root in group-ecstaticism in a purely physical way. Many so-called prophetic phenomena are pathological, somehow akin to Dionysiac frenzy (p. 231, 233). During the prophetic period the very nature of spiritual communion between the prophet and his God led to the spiritualization of His relationship to man in general, but there

[3] Of chronological importance is the fixing of the dates 1) of Hammurabi's reign at 1792-1750 B. C. (p. 319, n. 16). This lowering of the date does away with a hitherto inexplicable gap of several centuries; 2) of the Exodus as most probably cir. 1290 (p. 195).

was "no modification of the dominant concept of Yahweh as a person." The suddenly important spiritual aspect of Yahweh was not new—it was latent from the beginning (p. 235); the prophets therefore were not innovators but reformers. The once overwhelmingly popular speculations of Wellhausen are roundly criticized (p. 244), and the unique character of Deuteronomic literature is appreciatively explained. Coming to the restoration period, Mr. Albright follows van Hoonacker in placing Nehemias before Esdras (p. 248); but the foremost spiritual figure of Judaism during the Exile was indisputably, he declares, (abnormal) Ezechiel, from whose lips the idea of individual responsibility (explicit in the apodictic law from the beginning of Yahwism) received its most powerful expression (p. 249). Similarities between the biblical and Babylonian Job's are examined and found to be superficial (p. 253-254), and the suffering Servant of Yehweh is, for the author, a standing theme which is differently treated in different poems (p. 255).

The final chapter, *In the Fulness of Time*, points out that Greek culture was felt in Palestine throughout the whole of the Iron Age! Inevitably, then, Judaism was influenced by it. The fluctuating ideas of a future life, tentatively explored by inquisitive minds from the sixth century B. C. on, became increasingly concrete under indirect Iranian influence (p. 270). During the Macchabean era the Hellenizing process touched its apogee; the expected reaction on the part of the Pharisees who "made a fence for the Torah" (p. 273) did not delay its coming; but the reaction itself was a reflection of the Hellenistic spirit. The problem of evil, *bête noire* of all religious systems, was finally given a plausible answer (p. 279), thanks again to Iranian influences. The remaining twenty pages deal with angelology, eschatology, and the Logos of St. John; this last is traced back to a dynamistic conception of the third millenium B. C. (p. 285).

Mr. Albright's attitude towards the Gospels is for the most part refreshing. He says that the historian has no right to deny what he cannot prove, and then proceeds naively (p. 307) to allege as unprovable the birth and resurrection of Jesus! His treatment of the religion of Jesus is at once sympathetic and reverent—though incomplete—emphasizing the exquisite balance of His ethical teachings and His astonishing balance with regard to religious and non-religious questions.[4] Jesus' solution to the problem of evil (looking upon evil as a potent requisite for salvation as well as the normal divine punishment of sin) far surpassed anything yet offered (p. 302). Christ's other religious ideas are said to show by their

[4] We quote with approval the remark on p. 303: "Lofty as the ethical teachings of Jesus are, they might not be considered quite so impossible to carry out in life if would-be followers were not inclined to make their own eclectic selection and exegesis of injunctions to be followed."

sense of balance and proportion that He was profoundly influenced by Hellenism. Then, veering far from the fantastic conclusions of many New Testament investigators, Mr. Albright holds that "Jesus's messianic consciousness was the central fact of His life" (p. 305). But while stating that the Gospels record the belief that the Messias is both the created (p. 291) Son of Man and the created (p. 305) Son of God, Mr. Albright all too briefly *suggests* only Christ's divinity as "the God of the agony at Gethsemane." (p. 311).

III

Mr. Albright has succeeded admirably in presenting to the public a prodigious collection of facts, engagingly set forth in impeccable English, and bearing eloquent witness to patient, painstaking labor. No other book, to our knowledge, can approach it in the wealth of matter assembled. Mari, Ugarit (Ras Shamra), Nuzi and other recent discoveries are given the attention they deserve. The copious notes found at the end of the book point to indefatigable research and reveal a mind which ranges far afield, undaunted by the pitfalls surrounding many extremely delicate problems.

Has the author succeeded in his monumental task? We believe we may answer in the negative. The book is an attempt to synthesize and cast into a philosophic mould all pertinent archaeological and linguistic discoveries which have a bearing on religious history. The author has marshalled these facts, old and new, to the support of untenable philosophical principles, viz., that an inductive organismic philosophy alone can give integration to historical patterns; that history and science do not differ in method; and finally, that evolution of one kind or another must be accepted as a working principle even in the field of religious ideas. We readily admit that the idea of God became progressively clearer with successive revelations, but this is a far cry from an evolution which argues that the idea of God developed from polytheism to monotheism. This has yet to be proved.

In spite of this, however, Mr. Albright's conclusions are sometimes excellent—better than his principles would lead us to expect—often differing radically from those of the extremists; but they are not always of such strength as to compel our unqualified adhesion. While then the author has not succeeded in contributing any basically new or valid philosophy of history, he has failed courageously, and to such a courageous seeker after Truth one cannot but tender congratulations and the sincere tribute of respectful praise. The merits of his book far outnumber its defects.

Richard T. Murphy, O.P.

Dominican House of Studies,
Washington, D. C.

Adversity's Noblemen. By Charles Edward Trinkaus, Jr. New York: The Columbia University Press, 1940. Pp. 172, with index. $2.00.

It used to be generally held that the egoism, individualism and optimism of modern man found their champions in the humanists of the Renaissance period. This attitude, attributed to the work of Burckhardt, is challenged by the author. By investigating the neglected treatises on moral philosophy of the humanists, he tests the theses of Burckhardt, (1) that the humanists' interest was individualistic and psychological, and (2) that the "humanists showed enthusiasm for the good things of this world." His study puts him in the ranks of many historians who now view the Renaissance as something culturally linked with the Middle Ages.

The second chapter examines another "modern assumption that the medieval teachings of Catholicism were characterized by a much lower estimate of the happiness of human life on earth than certain modern idealistic and materialistic philosophies." The author analyzes the doctrine of St. Augustine on happiness and finds that Augustine (Petrarch's imaginary guide) approached the problem from the psychological point of view in accord with most of the humanists. He then contrasts this with the Thomistic doctrine of happiness: "The humanists' revolt against Scholasticism may well have been determined by the manner in which the Thomists approached the problem of happiness" (p. 31). "Thomas presents the greater contrast with the humanists because he possessed the feeling of social integration which both they and Augustine lacked" (p. 37).

The author next takes up the attitude of the humanists on happiness, misery, and the highest good. The reason for their peculiar preoccupation with the problems of happiness may be found, he suggests, partly in their insecure position as individuals, and partly in the Greek literature which they relished. There are many shades of difference among the humanists on these points but most of the men the author analyzes place happiness, theoretically at least, in the higher goods of virtue, nobility, and eternal life. Many of the humanists attempt to justify their claim to true nobility by reason of their devotion to a life of learning and virtue.

There follows an analysis of the humanists' theories about the constitution of the individual man and its influence on his happiness in this life. The author groups these theories into three classes: those of Stoic tendencies, those of Platonic and Neo-Platonic tendencies, and those of Aristotelian tendencies. He then considers the attitude of the humanists toward the physical world with its hardships and the inadequacies of society, as evidenced in the lack of security and tranquility. Discussions concerning "calamities" became more prominent among the humanists when patronage assuaged somewhat the insecurity of their own lives.

Lastly, in a chapter entitled "Some Afterthoughts" the author con-

cludes that "flat judgments" about the fifteenth century humanists are difficult. All humanists are concerned with the problem of happiness as it affects the individual, but there is no single outlook on life characteristic of the whole group. Criticism and pessimism in regard to their own world are much more common among the humanists than is usually admitted. It is possible to be egoistic in the face of pessimism and the author cautiously concludes that the humanists did not differ greatly from their medieval predecessors on the problem of happiness. Idealism and selfishness, nobility and sordidness go hand in hand; there is an inescapable conflict between the ideal and the practical necessities of life. The author, however, avoids formulating any unscientific generalizations.

A study of this kind calls for congratulations on several counts. It is an honest attempt to deal objectively with a period that has too often been interpreted from the biased viewpoint of overly enthusiastic admirers. It deserves praise for combating the false notion that all the Renaissance humanists were revolutionaries alien to medieval culture and tradition. His earnest effort to expound St. Augustine and St. Thomas from their own writings is laudable. For those unscientific souls who still consider the whole medieval era as the dark ages of superstition, as the time when the *Church* (in all its sinister implications) frowned on the human body, marriage, and anything that savored of human pleasure and happiness, this ought to be a beneficial antidote.

On the debit side may be mentioned briefly the following points: First of all, the author betrays a lack of depth in explaining the position of St. Thomas on happiness which possibly results from a superficial consideration of the text divorced from the organic unity of the whole treatise on happiness, a misunderstanding of the technical method and style of St. Thomas, and an insecure hold on the basic principles underlying his whole philosophy and theology. These two quotations are typical: "Aquinas, however, made no concessions to human feelings" (p. 32). "It is obvious that to define happiness as the knowledge of God is to deny to it a whole series of other human activities" (p. 32). Apparently the author is not aware of the scholastic distinction between the *state* of happiness, which is the aggregate of all goods, and the *essence* of happiness, which is its one indispensable ingredient. Furthermore, St. Thomas carefully distinguishes between happiness here on earth and the perfect bliss of the next life, when circumstances will be greatly changed. To give the impression that St. Thomas was an unemotional, frozen metaphysician in his doctrine on happiness is to caricature his balanced intellectualism. The author says, "Happiness does not seem to be an individual matter for St. Thomas. . . . Rather it is something achieved by the co-operation of all human activities making possible the vicarious contemplation of truth by the theologians at the pinnacle of a hierarchy" (p. 35). This is unfair. A brief consider-

ation of the dignity of the human person and the destiny of each person to contemplation and virtuous living as viewed by St. Thomas would have prevented this lopsided interpretation of the functions of the various classes of men in relation to the common good. When one considers the Thomistic doctrine on the supernatural equipment of each soul, the infused virtues, the gifts, and so forth, it ought to be obvious that the medieval theologians cannot be justly accused of neglecting individual perfection at the expense of the theological aristocrats.

Secondly, if the author had had a more secure grip on the Augustinian and Thomistic systems he would not have set them in such contrast on the problems of happiness. They are in fuller agreement than he suspects. In fact he almost says as much without clarifying the implications of his words. Finally the author neglects to make an important distinction between the Christian humanists and the pagan humanists, who came in conflict with the Church, and he thereby makes his task more difficult. If he had consulted Pastor's *History of the Popes*, perhaps he would have avoided many pitfalls and would have produced an immeasurably more valuable work. The earlier Christian humanism was a direct outcome of the medieval view of life and especially of the Thomistic synthesis, with its harmonization of Aristotle and Christianity. The author seems to suggest this in the following passage: "If anything, Thomas came closer to affirming the importance and legitimacy of a wider range of human activities than Augustine and many humanists" (p. 37). When the dynamic balance of Christian humanism was lost and pagan philosophy supplanted the Christian outlook, we find very important differences between the medieval and humanist concept of happiness. The author should have considered more seriously the repudiation of Christianity by many of the later humanists. (Cf. Pastor, *History of the Popes*, IV, 36.) In this way we may discover the general qualities which characterized these anti-Christian humanists. They differed widely in their views according as they followed Plato, the Stoics, the Epicureans, or Aristotle (interpreted in a materialistic sense). Christianity countenances the pursuit of wordly goods and earthly happiness, in a manner, however, conformable to man's final end. If one looks for differentiating characteristics between the humanists and the medieval thinkers on the pursuit of wordly goods and happiness, nothing very definitive can be concluded, especially since many of the Christian humanists agreed with the medieval theologians that earthly goods and happiness were holy, provided that they never predominated over man's spiritual life.

Joseph C. Della Penta, O.P.

Dominican House of Studies,
Washington, D. C.

BRIEF NOTICES

Preliminary notice of a new Latin edition of the *Summa Theologica*, edited and published by the INSTITUTE OF MEDIEVAL STUDIES, OTTAWA, CANADA.

Assuredly it cannot be said of our American continent that it is a place where centers of religious teaching are least devoted to the doctrine of St. Thomas. A considerable number of our theological students are anxious to have, at all costs, the works of the Angelic Doctor. Further, they have consistently held their place among the good clients of the Leonine Commission of Rome. At present, due to the unfortunate conditions of the times, we are entirely cut off from those European booksellers who formerly supplied us with the precious volumes. The necessity for an edition of St. Thomas in America is clearly becoming ever more urgent. Consequently, the Institute of Medieval Studies, Ottawa, is preparing a new edition of the *Summa* of St. Thomas, based on the "Piana."

Possibly this name "Piana" is unknown to some of our readers. This word is an Italian adjective, derived from the proper name Pius (Pio), and so, when we speak of the "Piana Edition," we are referring to the edition made by St. Pius Fifth, Pope-reformer of the latter part of the sixteenth century (1566-1572). This Pontiff, who claims the distinction of carrying out the reforms of the Council of Trent, felt, as did many of his predecessors, that the way to ensure a sound theology for the Church was to adopt that of St. Thomas. After having bestowed the title of "Angelic Doctor" upon the thirteenth-century theologian—an unprecedented honor—he commanded a complete edition of his works to be made, the first ever given to the Church.

Marriquez, a Dominican holding the Vatican post of Master of the Sacred Palace, who was given the charge of preparing the text, was guaranteed the assistance of his Order's top-ranking theologians. The work progressed rapidly and in less than five years it was completed.

However, because of the condition of the medieval texts after three centuries of manuscript transcriptions, the task was a delicate one. The medieval writer, the master of the University of Paris, did not have professional publishers at his disposal, nor was it always possible even to have his writings reread. When St. Thomas, for example, composed a work, he would hand the manuscript—a mere scrawl—to a professional scribe, who would transcribe it on separate sheets known as *pecie*. The copy would then be deposited in an editing office. If someone wished to procure the work in question, he could order a copy, provided he had sufficient funds to do so. By means of a pledge, needy students would obtain a *pecia*, which

they would transcribe themselves. The sheets thus circulated would be replaced by others, the text of which was necessarily still further removed from the original.

When a master enjoyed a certain prestige, the manuscripts of his work would perhaps number thousands, and would go beyond Paris to England, Spain, Germany, and Italy, there to undergo further transcription, particularly in the local convents. This, evidently, was the case with the writings of St. Thomas, for they were among the most widespread of the thirteenth century. What peril for the text in this very multiplication! It would seem that the Thomists were soon aware of this danger, for in the manuscripts we discover a certain critical preoccupation, which is manifested by later corrections added by other hands. The copies which come to us from the convents of lower Italy are particularly important in this regard, for they were frequently revised according to the autographs of St. Thomas. These had been left at the convent of Naples by Reginald of Piperno, *socius* or companion, of Master Thomas.

At the time of Pius V, a number of these specimens, "revised and corrected," had already found their way to the Vatican Library. Moreover, the collaborators of Marriquez could peruse them for the purposes of their edition. Nevertheless, due to the rapidity with which it was accomplished, the work of these latter was soon regarded with suspicion. In 1610, a new edition appeared in Antwerp, professing to be a correction of the Piana. The "fashion" of "improving" the text of St. Thomas was launched, and the number of its devotees has increased with the years. There is no denying that a certain progress was possible, but the methods employed were hardly satisfactory. They resolved themselves, in the last analysis, into doctrinal prejudice. Each one adopted the reading which seemed best suited to his personal opinions, and thus all the editions which the ensuing centuries produced may be considered as corruptions of the Piana.

At the close of the nineteenth century, however, a new Thomist Pope resolved to make a new edition of St. Thomas. Like Pius V, Leo XIII had recourse to the Dominicans for this task. These latter, after several years of labor in silence, obscurity, and even misunderstanding, succeeded in perfecting a method of recovering the authentic text of St. Thomas. It consisted in determining the value of the different readings by tracing them to their origin. The fragments of the original of St. Thomas' *Contra Gentiles*, still preserved in the Vatican, have served as a gauge in appreciating the results obtained. Also, several competent authorities, such as Msgr. Pelzer of the Vatican, and Père de Ghellinck, S. J., of Louvain, have written that the edition known as the Leonine is a masterpiece.

Unfortunately, the first volumes, containing the *Prima Pars* of the *Summa*, were prepared at a time when the above-mentioned method was

not yet fully established, and under pressure from outside, which circumstances hastened the publication of these volumes. For that reason they are in need of revision. This circumstance explains why the Dominican Order, the legal owner of the Leonine, has always been opposed to the reprinting, in any form whatsoever, of those volumes of the edition which contain the *Summa*. This policy will last as long as the first volumes are not worthy of those which follow. The Institute of Medieval Studies of Ottawa cannot, then, use the text of the Leonine as a basis for its edition of St. Thomas. The work of its predecessors, nevertheless, has proved useful to it.

The scholars of the Leonine, having worked on the Piana for sixty years, know its value. Furthermore, they have technically compared the other editions with the Piana, so that they are competent to point out which is the best text to use for any future edition. Their opinions may be found chiefly in the prefaces of the Leonine, but also in their scattered writings.

The author of these lines has often heard Père Clement Suermondt, who devoted twenty-one years to a serious, critical study of the Piana, state the following conclusions:

1. The collaborators of Marriquez were not strangers to the critical problem. They were attempting to get as close as possible to the text of St. Thomas. They had a fairly abundant assortment of variants before them, and among these they made a wise choice. Of course their technique for estimating the value of the different manuscripts had not attained our modern precision; nevertheless their text is very satisfactory, and considerably better than all the others which have followed.

2. Even though the Piana has many faults of its own, still it has far less than the previous editions; above all, it has far less than the manuscripts.

These facts being true, the Canadian editors are perfectly justified in their strict fidelity to the venerable text of St. Pius V. True, they do not pretend to be producing a critical work, but the work which they have undertaken has nevertheless assumed great proportions. They are confident of presenting a markedly scientific text, or, if I may use the word, a " criticized " text. Readings of the Piana which are recognized as defective are indicated by the sign $<>$, which accompanies the faulty words or phrases; and the verified reading of the Leonine is given in the notes, provided always that the variation is of notable importance from a theological or philosophical standpoint. Since the punctuation of the sixteenth century editors is quite unsystematic, it has been carefully revised in accordance with reasonable rules.

Painstaking research has been made for the references. The titles and divisions of the works cited—for example, the books and chapters—are inserted between parentheses in the text. The references to the editions—

for example, the volumes and pages— are placed in a system of footnotes, clearly distinguished from the one which contains the variants of the text. Uniformity has been sought in the abbreviations, and in the system of references as a whole. The signs used are few in number, and an explanation of them will be found at the beginning of each volume. Although the scientific apparatus has been simplified, still an endeavor has been made to keep it clear so that the references may be truly an aid and not a puzzle. Reference is made especially to the great collections: the Latin and Greek Patrologies; Mansi; Richter-Friedberg; and for Aristotle to Didot and to Bekker.

The parallel references, cited by both ancient and modern editions of St. Thomas, have been checked individually. They are presented in the chronological order of the works from which they have been drawn, according to the present findings of medieval students. Thus a student of the Angelic Doctor who looks up in order the references given for each article, will get a clear idea of the development of the Master's thought.

The new edition will appear in the format of the Leonine's manual edition of the *Contra Gentiles*. The text will be printed in two columns. The number of the page will be indicated at the top of each column and distinguished by the letters "a" and "b." The lines will be numbered. There is a project under way to add a volume of completely new tables. This would contain an alphabetical lexicon explaining all the philosophical and theological terms. References will be given to the page and line of the work.

Consequently, the edition of the *Summa*, which the Institute of Medieval Studies of Ottawa will place at the disposal of Canadian and American students a few weeks hence, will be by no means inferior to all the other current editions of the same work. In perfection it will yield only to the monumental Leonine edition.

College Dominicain,
Ottawa, Canada

PIERRE TREMBLAY, O.P.
Member of the Leonine Commission

The Mystical Theology of St. Bernard. By ETIENNE GILSON. New York: Sheed & Ward, 1940. Pp. 266, with indices. $3.50.

With his usual skill and deftness, M. Gilson picks up the leading thread of St. Bernard's mystical theology and follows it through the works of the Saint from beginning to end. Taking for his starting point the question that faced Bernard and his companions when they entered Cîteaux and the answer they found there, Gilson places the essence of Bernard's theology in the restoration, through the ecstatic and pure love of God, of the likeness of God destroyed by sin. The sources of this doctrine are indi-

cated, especially the rule of St. Benedict, which in its last chapter opens the way to unlimited progress in the spiritual life.

The wealth of M. Gilson's erudition flows over into appendices and notes to the text, giving the reader flashes of insight into the historical background and environment of the great Doctor.

An Inquiry into Meaning and Truth. By BERTRAND RUSSELL. New York: W. W. Norton and Co., Inc., 1940. Pp. 445.

Under this imposing title, Mr. Russell proposes to consider language in relation to two questions, (1) "What is meant by empirical evidence for the truth of a proposition?" and (2) "What can be inferred from the fact that there sometimes is such evidence?" In the twenty-five chapters of his work, he discusses such matters as the nature of a word, sentences, "object-language," logical words, proper names, language as expression, truth and falsehood, truth and experience, the law of the excluded middle, language and metaphysics. With regard to truth, Mr. Russell holds that it is a predicate "primarily, of beliefs, and derivatively of sentences." It is a wider concept than verifiability and cannot be defined in terms of verifiability. He rejects the coherence, warranted assertibility and probability theories of truth, and accepts that of correspondence "according to which the truth of basic propositions depends upon their relation to some occurrence, and the truth of other propositions depends upon their syntactical relations to basic propositions." Since no one wishes to admit that truth must be confined solely to propositions asserting what he now perceives or remembers, Mr. Russell concludes that "we are driven to the logical theory of truth, involving the possibility of events that no one experiences and of propositions that are true although there can never be any evidence in their favor. Facts are wider (at least possibly) than experiences. . . . Since an experience is a fact, verifiable propositions are true; but there is no reason to suppose that all true propositions are verifiable."

Mr. Russell brings his book to an end with the sober conclusion "that complete metaphysical agnosticism is not compatible with the maintenance of linguistic propositions. Some modern philosophers hold that we know much about language, but nothing about anything else. This view forgets that language is an empirical phenomenon like any other, and that a man who is metaphysically agnostic must deny that he knows when he uses a word. For my part, I believe that, partly by means of the study of syntax, we can arrive at considerable knowledge concerning the structure of the world."

BOOKS RECEIVED

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